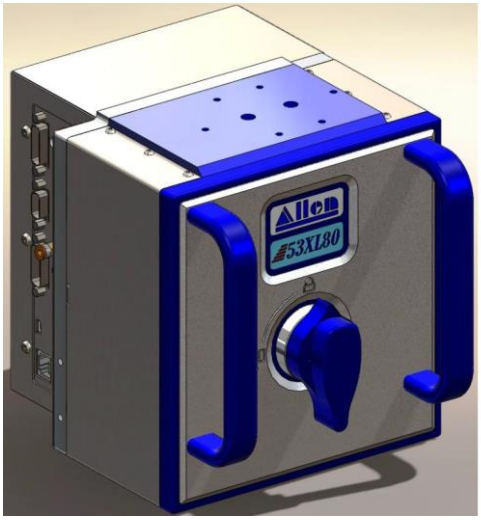
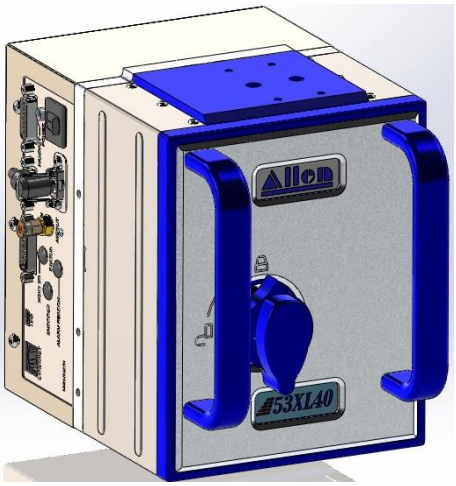
ALLEN CODING
A DIVISION OF ITW

XL-Series

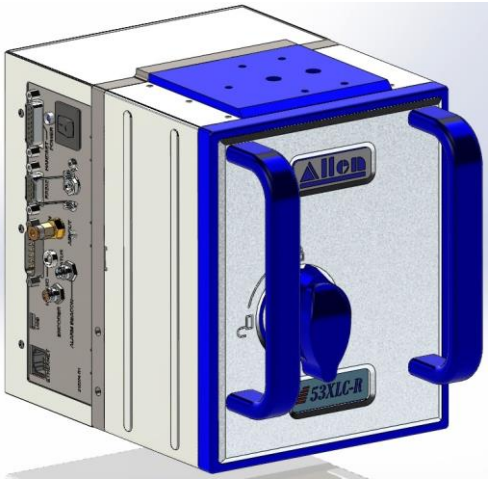
THERMOTRANSFER-PRINTING SYSTEMS



53XL80U



53XL40



XLC-R / XLC-L

25XLi

OPERATING INSTRUCTIONS

Important Notes

Operating instructions

Description	XL-series
Version	1.13
Issue date	17.Sep.2014
Document number	M01501113EN0914

The operating manual is a translation of the original operating instructions.

Applicability

The present operating instructions apply to the device with the following article number.

Device name

Part Number	Description
219100	25XLi
219110	53XL40
219120	53XL80U
219130	53XLC-R
219140	53XLC-L

Using this manual

- First read the Chapter on “Safety Information” before you begin work with the device.
- The operating manual enables safe working on and with the device. It is essential that you comply with all safety instructions contained therein.
- Read the complete operating manual before installing and commissioning the device.
- The operating manual is a part of the device. It has to be stored so that every person that works on and with the device has access to it at all times. The manual must be complete and in an easily readable condition.
- When the device is passed on, you have to enclose the operating manual.
- If the operating manual is lost, please ask for a replacement. Information on the current version of the operating manual may be found on our website **www.AllenCoding.com**.
- The information provided in these Operating Instructions relate to the devices described under “Applicability”.
- For additional technical information on the device, please refer to the service manual.

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1 Product Identification

1.1 Characteristic data

XL-Series (intermittent printer)		
Article Number (53XL80U)		219120
Article Number (53XL40)		219110
Article Number (25XLi)		219100
Operating mode		Intermittent (IM)
Print area (53XL80U) Width x Length	[mm]	max. 53 x 80
Print area (53XL40) Width x Length	[mm]	max. 53 x 40
Print area (25XLi) Width x Length	[mm]	max. 32 x 40
Print speed	[mm/sec]	min. 75 max. 400

XL-Series (continuous printer)		
Article Number (53XLC-R)		219130
Article Number (53XLC-L)		219140
Operating mode		Continuous (CM)
Print area (53XLC-R / 53XLC-L) Width x Length	[mm]	max. 53 x 300
Print speed	[mm/sec]	min. 75 max. 450

XL-Series (common characteristics)		
Print resolution	[dpi]	ca. 300 (corresponds to 12 dots/mm)
Thermal printhead (53XL80U / 53XL40 / 53XLC-R/-L)	[inches]([mm])	2 (53)
Thermal printhead (25XLi)	[inches]([mm])	$1^1/_4$ (32)
Ribbon length	[m]	up to 600
Ribbon dia	[mm]	up to 83
Rotations (printing)	[°]	0, 90, 180, 270
Interface		**Inputs**: Print signal input (see Appendix "***Connection Options***") **Outputs**: Printer error, Enable print cycle, Free/Busy **Communications**: USB (virtual COM port), RS232, Ethernet (10/100Mb)
Barcodes		2/5 Interleaved, Code 93, UPC, EAN8, EAN13, Code39, DUN14, Code128, EAN128, Databar, Databar Truncated/Limited/Stacked/ Omnidirectional, Datamatrix, GS1-Datamatrix
Fonts		3 Internal Fonts (News Gothic Bold compatibility font, Swiss 721 bold, Swiss 721 roman) Mirror print, Up to 12 Fonts Expandable by the customer
Data fields		Dates/Times (Real Time/time offset), Counters, incremental and decremental, fixed and variable texts, variable fields, free fields for bar codes, shiftcodes, etc.

1.2 Compliant Use

1.2.1 Ambient conditions

XL-Series (for all printers):		
Ambient temperature, operation	[°C] ([°F])	+5 to +40 (+40 to +104)
Relative humidity, operation (non-condensing)	[%]	20 to 75
Protection class	[IP]	IP20
Ambient temperature, transport and storage	[°C]	-25 to +55 (-13 to +131)
Relative humidity, transport and storage (non-condensing)	[%]	20 to 75

1.2.2 Designated use

- The XL-Series Printers operate with a thermo transfer printing method.
- The Printing System can transfer, save and process alpha-numeric and graphic information and apply it to materials suitable for this printing method.
- The 53XL80U, 53XL40 and 25XLi printer can be operated in intermittent mode. The XLC-R/-L printer can be operated in continuous mode.
- The Printers are intended for commercial or industrial use.
- The Printers may not be used outdoors or in a non-explosion-safe environment (Ex-area).
- Only auxiliary materials, operating materials (ribbon) and process materials (labels, foils, packing materials) suitable for these printers and printing methods may be used.
- The Printer must be permanently installed into a frame designed for this purpose (machine frame/machinery holder).
- No modifications to the Printers are allowed.
- Operation and set-up of the Printer may only be performed by trained personnel authorized by the operator.
- Working on the Printer (installation, maintenance, cleaning) may only be performed by fully qualified and trained technical personnel.
- The applicable safety requirements, the ambient conditions and technical data specified in these Instructions must be observed at all times.
- Operation of the Printer may only proceed with the specified accessories/consumable material/replacement parts. Only use original accessories and original replacement parts.
- The printer may only be operated with an inserted and locked cassette or attached protective cover (25XLi).
- The handles which are mounted on the cassette may not be used for lifting or carrying the printer.

Potential misuse of the device:

Operation/use of the Printer other than in compliance with the conditions established by the manufacturer may result in hazards to personnel and/or property damage.

1.2.3 Qualification of personnel

Operation and set-up:
Operation and set-up of the device may only be performed by sufficiently qualified and trained personnel that have been authorized by operator to perform these tasks.

Installation, cleaning and maintenance:
Installation, cleaning and maintenance of the device may only be performed by fully qualified and trained technical personnel.

Maintenance:
Maintenance of the device may only be performed by the manufacturer's technical personnel or by fully trained and qualified technical personnel.

1.3 Technical data

This Section contains information on the mechanical and electrical properties of the Printing System and its accessories.

1.3.1 Mechanical data

NOTE

Mechanical data
Please refer to Appendix "***Dimensions***".

Printer 53XL80U:		
Equipment height	[mm]	205
Equipment width	[mm]	181
Equipment depth	[mm]	244
Weight	[kg] ([pounds])	8 (17.6)

Printer 53XL40:		
Equipment height	[mm]	205
Equipment width	[mm]	160
Equipment depth	[mm]	244
Weight	[kg] ([pounds])	7 (15.4)

Printer 53XLC-R / 53XLC-L:		
Equipment height	[mm]	205
Equipment width	[mm]	160
Equipment depth	[mm]	244
Weight	[kg] ([pounds])	7 (15.4)

Printer 25XLi:		
Equipment height	[mm]	205
Equipment width	[mm]	160
Equipment depth	[mm]	189,5
Weight	[kg] ([pounds])	5.2 (11.5)

1.3.2 Electrical data

Power Supply Input (for all printers):		
Voltage	[V_{AC}]	100 - 240
Frequency	[Hz]	50 - 60
Current	[A]	2

Power Supply Output (for all printers):		
Voltage	[V_{DC}]	24
Current	[A]	5
Power consumption	[W]	max. 120

1.3.3 Pneumatic data

The unit requires a normal industry supply of clean dry air. The air supply requirement is:

For all printers:		
Air supply	[MPa] ([bar] or [psi])	0.5 (5 or 75)
Connection for air supply tubing with outside diameter	[mm]	4
Requirements for compressed air supply		Oil-free, clean and dry air

Pressure Regulator:			
Air supply	Input	[bar]	min. 0 – max. 6
	Output	[bar]	min. 0 – max. 6
Connection for air supply tubing with outside diameter	Input	[mm]	6
	Output	[mm]	4
Requirements for compressed air supply			Oil-free, clean and dry air

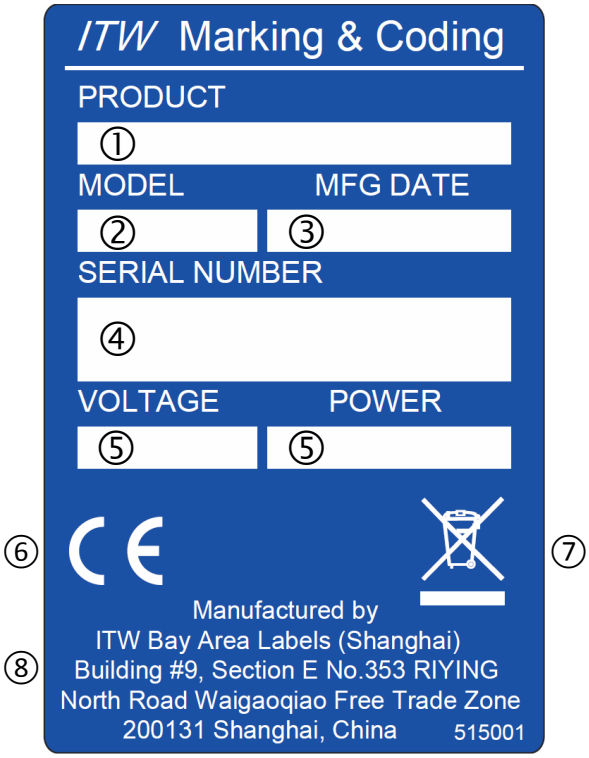
1.3.4 Noise Emission

For all printers:		
Noise Emission	[dB (A)]	51.86
Correction for background noise (K_{1A})	[dB]	0
Correction for physical environment (K_{2A})	[dB]	2

1.4 Identification of the device

Type plate

The nameplate attached to the device contains the following data:



①	Designation of device	⑤	Electrical data: Voltage, power
②	Device type	⑥	CE identifier
③	Manufacturing Date	⑦	WEEE identifier
④	Serial number (SNR) for unique identification	⑧	Manufacturer

1.5 Compliance Information

1.5.1 CE-compliance

NOTE

CE-conformity
The product's CE conformance is certified by attachment of the CE symbol to the name plate and by the conformity statement included with the product. A sample of the declaration is found in the Appendix to these Operating Instructions; see "***EC-Compliance Statement***".

The device meets the requirements of the following European EC-Guidelines:

- Machine guideline **2006/42/EG**
- EMC guideline **2004/108/EG**
- The low-voltage guideline 2006/95/EC was adhered to in regards to its protection objectives

1.5.2 EMC Compliance Statements

European Union (EU) Electromagnetic Compatibility Directive Compliance Statement

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Federal Communications Commission (FCC) Emissions Compliance Statement

This equipment has been tested and complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device might not cause harmful interference, and (2) this device must accept any interference received, including interference that might cause undesired operation.

Warning: Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

1.5.3 RoHS / WEEE – compliance

RoHS

The product complies with the relevant provisions of the RoHS Directive for the European Union.

WEEE Directive Statement for the European Union

WEEE-Reg.-Nr. DE	84410135

In common with all Electronic and Electrical products the product should not be disposed of in household waste. Alternative arrangements may apply in other jurisdictions.

2 Product Specifications

In this Chapter you will find information on the deliverable items and on the furnishings of the device.

2.1 Safety Requirements

NOTE

Please always follow the safety instructions.
See "***Safety Information***" Chapter.

2.2 Deliverable Items

NOTE

Check the deliverable items for completeness and condition.
After receipt of the shipment, please check immediately to see whether all items listed on the delivery ticket are included and are undamaged. The manufacturer does not accept liability for deficiencies that have been claimed subsequently. Complain against:

- Transport damages directly to the shipping service.
- Deficiencies and / or incompleteness immediately to the manufacturer or your distributor.

The following components belong to the standard deliverable items for the device

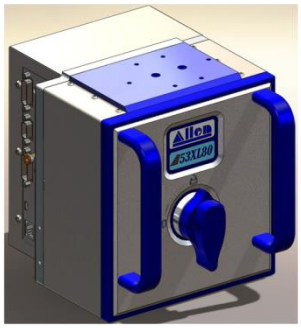
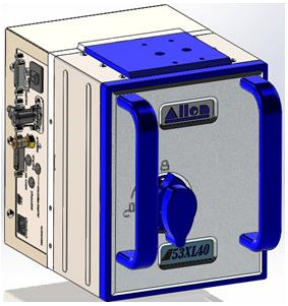
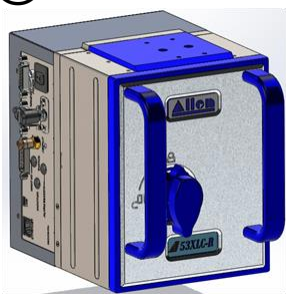
Position	QTY	Part number (Europe)	Part number (USA)	Description
①	1			**Options printer:**
		219100	219100	25XLi printer unit
		219110	219110	53XL40 printer unit
		219120	219120	53XL80U printer unit
		219130	219130	53XLC-R printer unit
		219140	219140	53XLC-L printer unit
②	1	215341	215341	Power Supply
③	1			Power Cord
④		102627	NMS-C-02	Print Signal Cable
⑤	1		NMS9056-KIT	Air Connection Kit (consists of: Pressure Regulator and Air Input Tubing)
⑥	1			**Options handset:**
		102157	102157	i-View Kit
		102600	18020000001	PR5 Kit
⑦	1		NMSC03-0000	RS232 Cable
⑧	1			Sample ribbon (100 m)
⑨	1	215395	215395	CD with operating instructions

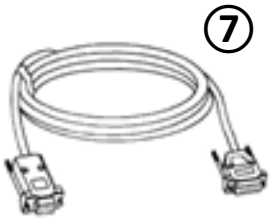
NOTE

Sample ribbon.
The sample ribbon supplied with the printer can be ordered as 600 m roll (Part No. 130017).

NOTE

This system is compatible with the touch screen handset i-View.
Please contact your dealer for further information.



2.3 Description of device

WARNING

Personal injury!

- Read and follow safety rules and guidelines in chapter 3 before attempting to setup or operate this equipment

The new series of **XL-Series** digital printers incorporates state-of-the-art technology. They are designed to print bar codes, alphanumeric texts, dates, times, logos, and other images directly onto the surfaces of packaging materials such as plastics, laminates, cellophane, cardboard, self-adhesives, etc.

To satisfy speed, flexibility and ease of handling requirements, the **XL-Series** exhibits the following salient characteristics:

- Compact size - electronics located inside body of printer.
- Full Unicode capability
- Downloadable fonts (user option)
- Ethernet port
- USB port
- Optional Alarm Beacon connectivity
- Maximum integration and adaptability to most machines.
- Minimum mechanical maintenance.
- Ease of configuration and ease of use.
- Simple connection to computer systems.
- Optimized use of thermal transfer ribbon.
- High-quality printing.

This printer is suitable for use on most form/fill/seal machines - both horizontal and vertical. It is also suitable for use on many other types of packaging machines such as print-and-apply and thermoform.

3 Safety Information

This Chapter contains information on the configuration and relevance of the safety information presented in these operating instructions, and also information on possible hazards which may occur even for compliant usage of the device.

3.1 Configuration of the safety instructions

⚠ **SIGNAL WORD**

Type and source of hazard

Explanation of the hazard and information on possible consequences of non-compliance

- Activities/prohibited actions to help prevent accidents.

	The pictogram denotes the type of hazard		
	The safety sign ⚠ before the signal word indicates a possibility of personal injury		
	The **signal word** denotes the severity of the hazard		
	SIGNAL WORD	**Consequences when hazard occurs**	**Probability of occurrence**
	HAZARD	Severe physical injury or death (irreversible)	imminent
	WARNING	Severe physical injury or death (irreversible)	possible
	CAUTION	Slight/minor physical injury (reversible)	possible
	ATTENTION	Property damage to machinery and/or to nearby assets	possible
	The reference text describes: ▪ type and source of hazard, ▪ the possible consequences of disregarding the safety instruction, ▪ measures or restraints to prevent the hazard.		

3.2 Used pictograms

Pictogram	Meaning
	Warning of a general hazard
	Warning of possible property damages
	Before performance, observe the corresponding information in the operating manual
	General note

3.3 Hazards during compliant use

⚠ CAUTION

Potential hazard caused by incorrect accessories and spare parts!

The use of accessories and spare parts that are not recommended by the manufacturer may compromise safety, functionality and efficiency of the device. Any liability and warranty for any damages caused by not recommended accessories and spare parts or non-intended use is excluded by the manufacturer.

- Thus use manufacturer recommended accessories and spare parts exclusively.

4 Installation

In the following Chapter you will find information on installation of the device.

⚠ CAUTION

Potential hazard due to incorrect or non-compliant installation!

An incorrect or improper assembly of the device may impair safety, functionality and efficiency of the device.

- The installation of the device may be performed exclusively by qualified technical expert personnel.
- Follow the relevant instructions in the operating manual.

4.1 Unpacking

⚠ CAUTION

Hazards due to defects or transport damage!

Transport damage to the device may result in unforeseeable hazards to personnel and/or property.

- When unpacking the device, check for any visible damage.
- Never ever connect a damaged device to the voltage supply.
- In case of transport damage, consult with the manufacturer or your distributor.

NOTE

Check the deliverable items for completeness and condition.

After receipt of the shipment, please check immediately to see whether all items listed on the delivery ticket are included and are undamaged. The manufacturer does not accept liability for deficiencies that have been claimed subsequently. File complaints with:

- Transport damages directly to the shipping service.
- Deficiencies and/or incompleteness immediately to the manufacturer or your distributor.

NOTE

Recycling of transport packing

The transport packaging may be stored for later recycling, e.g. transport or storage.

Step1: Open the transport packing.

Step 2: Check whether all items listed on the delivery slip are included and undamaged.

Step 3: Remove all components of the device carefully from the transport packing.

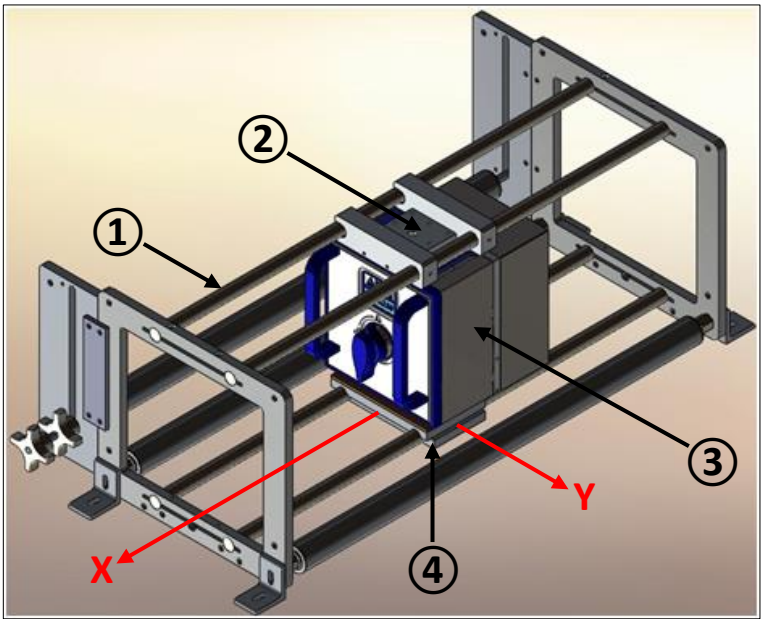
4.2 Mounting System

NOTE

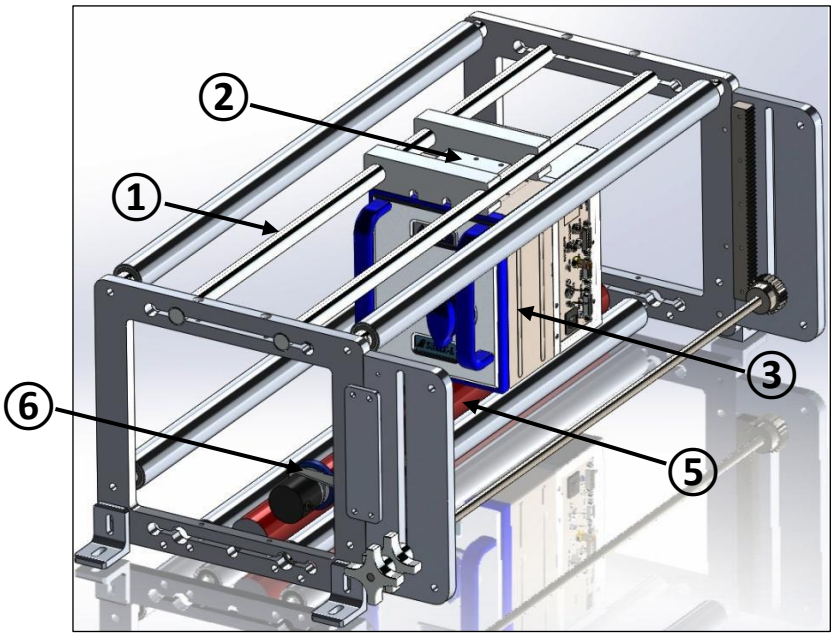
Mounting System

The picture below shows a popular mounting arrangement of the printer on a typical mounting frame. Please contact your dealer for details on frame configurations and availability.

Intermittent printer:



Continuous printer:



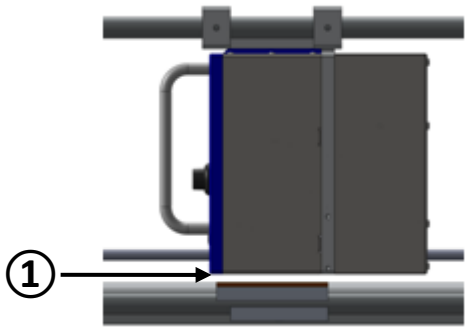
①	Optional Mounting Frame (Contact Dealer)	④	Platen
②	Adapter Mounting Plate (Part of Frame)	⑤	Platen Roller
③	Printer XL-series	⑥	Encoder

NOTE

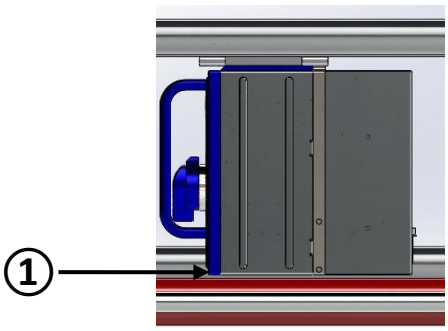
Mounting the printer

When mounting the printer, ensure that clearance between bottom of printer to top of platen or platen roller is between 2.0mm-3.0mm (.08”-.12”). Platen contact surface must be parallel to bottom of printer in X and Y directions (see above).

Intermittent printer:

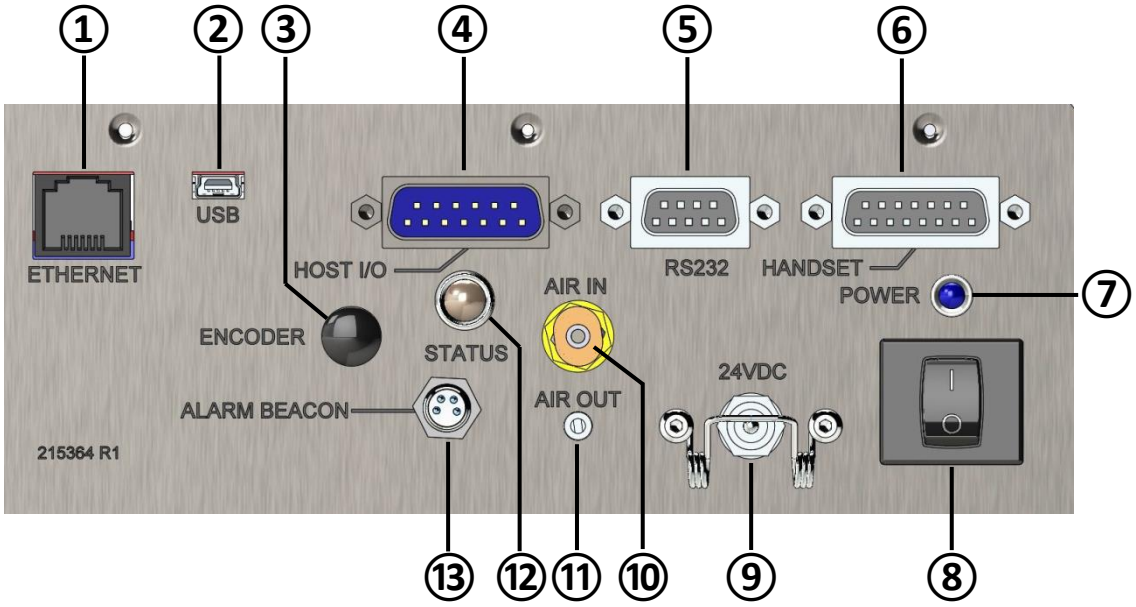


Continuous printer:



①	Gap

4.3 Interface Panel

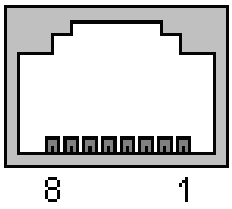


①	Ethernet Port	⑧	Power ON/OFF switch
②	USB Port	⑨	24 V_{DC} imput
③	Encoder Port Printer option for continuous motion (not used for intermittent motion printers)	⑩	Air input 4 mm quick connect
④	Printer input signal from host machine	⑪	Air exhaust M5 thread
⑤	RS 232 printer connection to computer	⑫	Printer status LED
⑥	Printer connection to handset	⑬	Connection for alarm Beacon (contact dealer for availability)
⑦	LED power on indicator		

NOTE

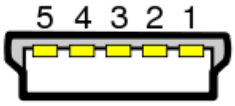
Your printer may be fitted with a 24 V_{DC} connector arrangement different from the one shown above. All connections remain the same.

1. Network connection (female connector RJ45)



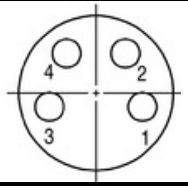
Pin	Description/Function
1	D1+
2	D1-
3	D2+
4	D3+
5	D3-
6	D2-
7	D4+
8	D4-

2. USB connection (port Type Mini-B)



Pin	Description/Function
1	+ 5 V
2	data -
3	data +
4	ID (not connected)
5	GND

3. Encoder (female connector)



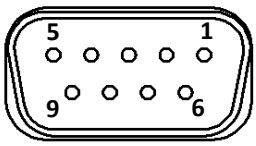
Pin	Description/Function
1	VCC + 5 V
2	A
3	GND
4	B

4. Host I/O (D-Sub 15-pin male connector)

Pin	Description/Function
1	Free/Busy (Output)
2	On cycle / Printed (Output)
3	Common Pins 1-2
4	Error N.C.
5	Error Common Pin
6	Error N.O.
7	VCC + 24 V (Output)
8	VCC + 24 V (Output)
9	Input+ (Print Signal)
10	Input- (Print Signal)
11	GND
12	GND
13	
14	
15	

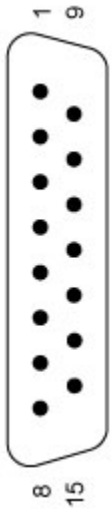
Please refer to chapter ***"Connection Options"*** for further details on how to connect I/O signals to host machine.

5. RS233 communication interface (D-Sub 9-pin female connector)



Pin	Description/Function
1	
2	TxD
3	RxD
4	
5	GND
6	
7	
8	
9	

6. Handset connector (D-Sub 15-pin female connector)



Pin	Description/Function
1	GND
2	RXD
3	TXD
4	VCC + 5 V
5	VCC + 5 V
6	
7	
8	
9	GND
10	GND
11	GND
12	GND
13	VCC + 5 V
14	VCC + 5 V
15	VCC + 5 V

7. Power-LED

8. Power-Switch

9. Power-Input 24 VDC

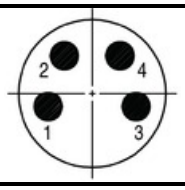
Pin	Description/Function
Inner	VCC + 24 V
Outer	GND

10. Air In

11. Air Out

12. Status LED

13. Alarm Beacon (male connector)



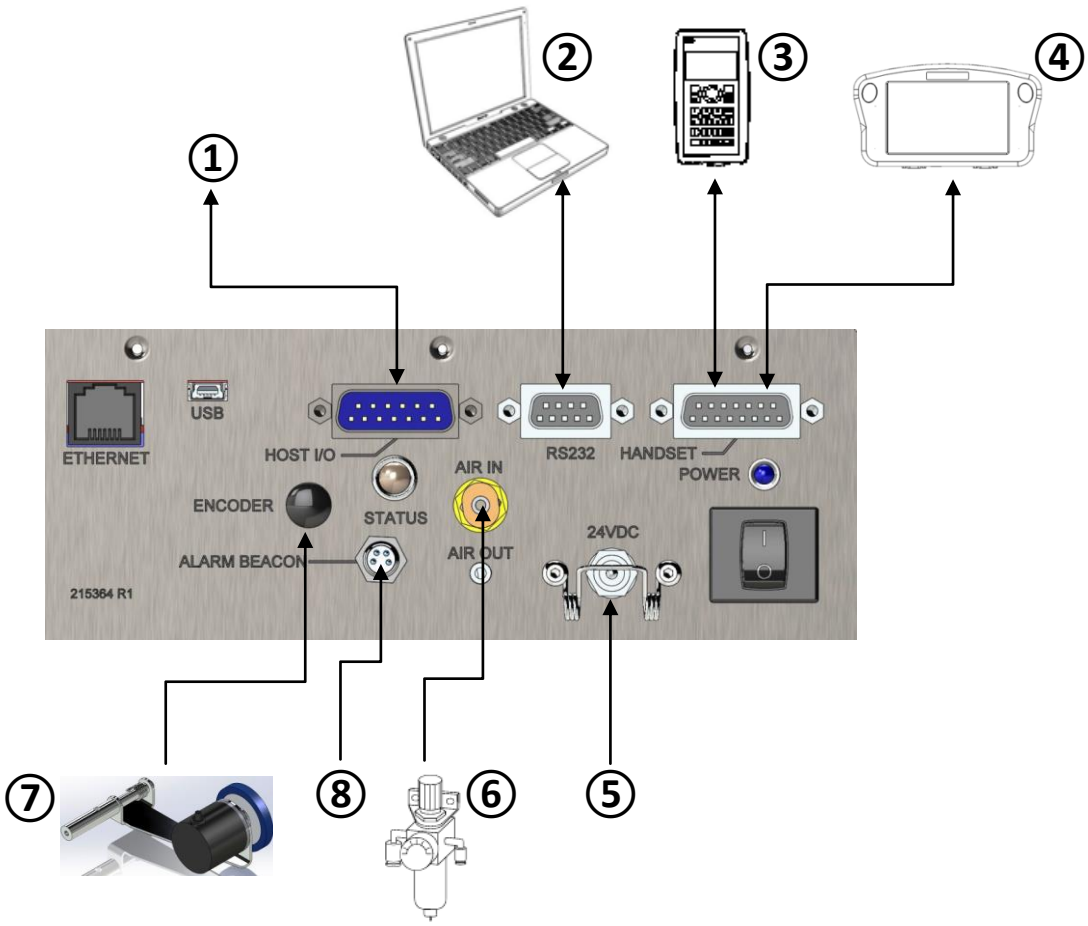
Pin	Description/Function
1	VCC + 24 V
2	GND
3	Warning
4	Error

4.4 Connection Schematic

WARNING

Personal injury!

- Read and follow safety rules and guidelines in chapter 3 before attempting to setup or operate this equipment



①	Host machine (see appendix for connection options)	⑤	Power Supply 24 V_{DC}
②	Computer (optional)	⑥	Air pressure regulator (**max. 6 bar**)
③	Option: PR5 Handset	⑦	Encoder (used for continuous motion printers)
④	Option: i-View Handset	⑧	To Alarm Beacon

4.5 Connecting Components

⚠ WARNING

Personal injury!

- Read and follow safety rules and guidelines in chapter 3 before attempting to setup or operate this equipment.

Power Supply

Position the 24 V power supply close to the printer module and connect the output cable to the printer module's 24 V_{DC} connector. Secure connector by engaging spring or clamp.

Air Supply

1. Position and secure the pressure regulator close to the printer module or in an accessible place where it is easy to operate.
2. Connect the pressure regulator air input port to the main air supply line and connect the air output to the printer module.
3. Set the pressure regulator to 75psi (~5 bars). Maximum permissible pressure is **6 bars**.

Handset (PR5 or i-View)

1. Use the communication cable to connect Handset (**PR-5 or i-View**) to the printer module.
2. Tighten the clamping screws. (See Handset (**PR-5 or i-View**) user's guide).

Host Machine

Use the SIGNAL CABLE to connect the printer to the host machine. See ***Appendix / Connection Options*** for connection configuration.

Computer

The printer can operate connected to the PC and to the Handset (**PR-5 or i-View**) at the same time, thereby ensuring maximum flexibility of operation.

1. Connect one end of the RS-232 cable to the computer's 9-pin serial port connector and manually tighten the clamping screws.
2. Connect the other end to the printer module and secure it by tightening the clamping screws.

Encoder (used for continuous motion printers)

Install using instructions supplied with encoder.

5 Operating

5.1 Cassette On / Off

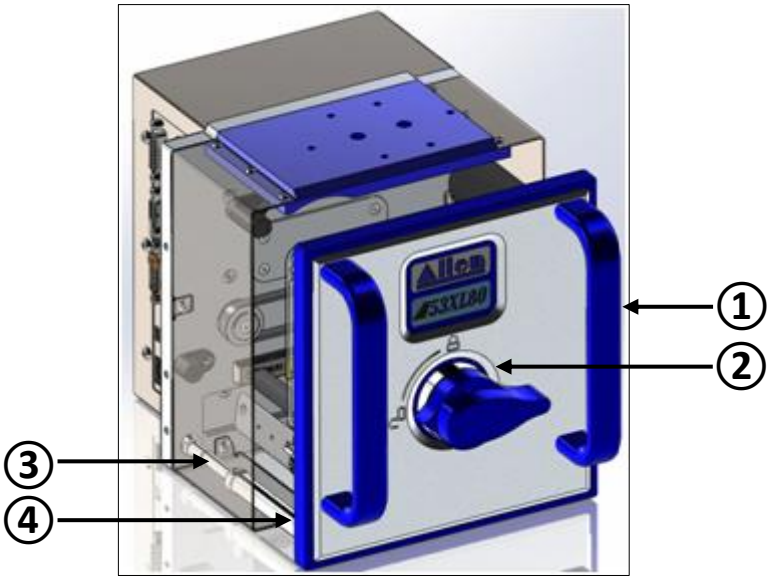
ATTENTION

Equipment damage

After removal do not rest cassette in standing position using alignment pins as stabilizer. Doing so can bend and/or scratch the alignment pins.

- This process must be conducted in a clean, dust-free, and flat work surface.
- It is advisable to rest the cassette on handles when disconnected from printer engine.

Cassette removal and installation is quick and easy. Simply turn the locking knob counter-clockwise to unlock and clockwise to lock.



①	Handle	③	Alignment Pin (male on printer)
②	Cassette Locking Knob (in open position)	④	Alignment Pin (female on cassette)

ATTENTION

Equipment damage

Exercise caution when removing or replacing cassette.

- Engage alignment pins **BEFORE** moving cassette towards engine.
- Keep cassette plate parallel to engine body during process.

ATTENTION

Equipment damage

Even slight contact to metal parts of engine can cause damage to ribbon resulting in ribbon breakage and work stoppage.

- Do not allow ribbon to contact metal parts of engine.

⚠ CAUTION

Personal injury!

An unlocked cassette can fall out and cause injury.

- After cassette is fully engaged and locked onto engine, make sure it is properly secured by pulling cassette away from engine without touching lock button.

5.2 Ribbon Installation / Removal

ATTENTION

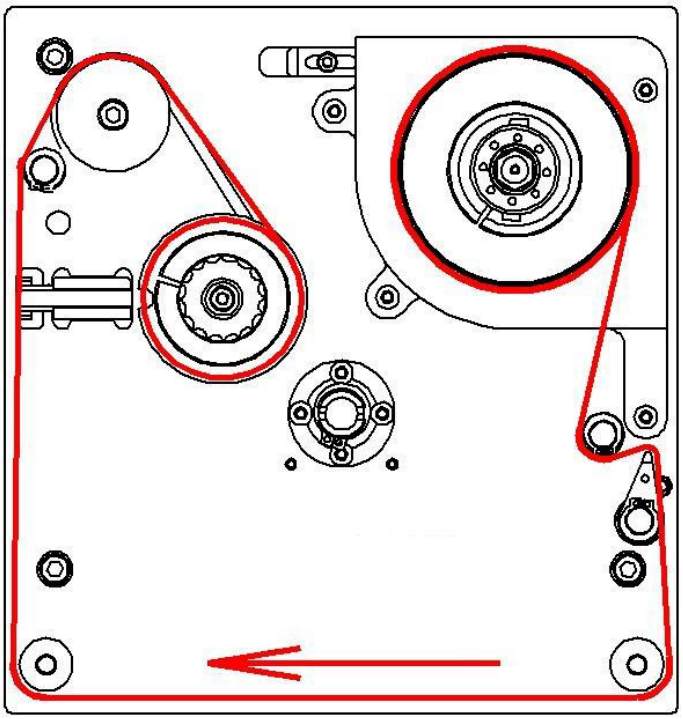
Equipment damage

This printer has been designed and fine-tuned to provide high quality images using certain ribbons with specific chemistry. The use of incompatible ribbons can cause damage to the printer. Such damage may not be covered under warranty.

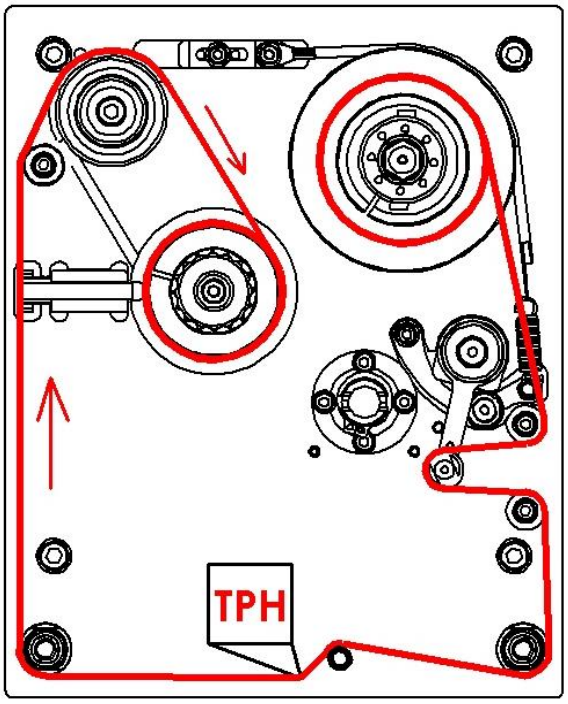
- Contact your distributor regarding recommended ribbons for use in this printer.

Route Thermal Transfer ribbon on cassette as shown in schematic below. Ribbon must be supplied to Thermal Print-head with the ink side facing outwards. This ribbon routing format is commonly referred to as “ink side out”.

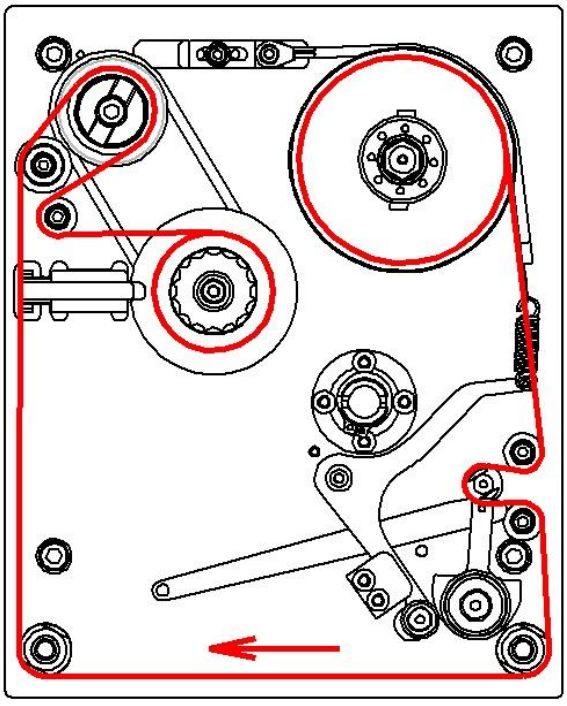
53XL80U:



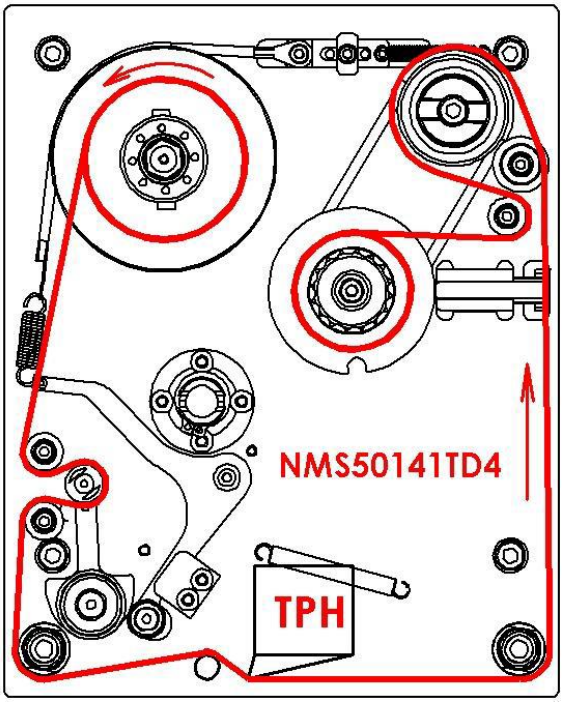
53XL40:



53XLC-R:

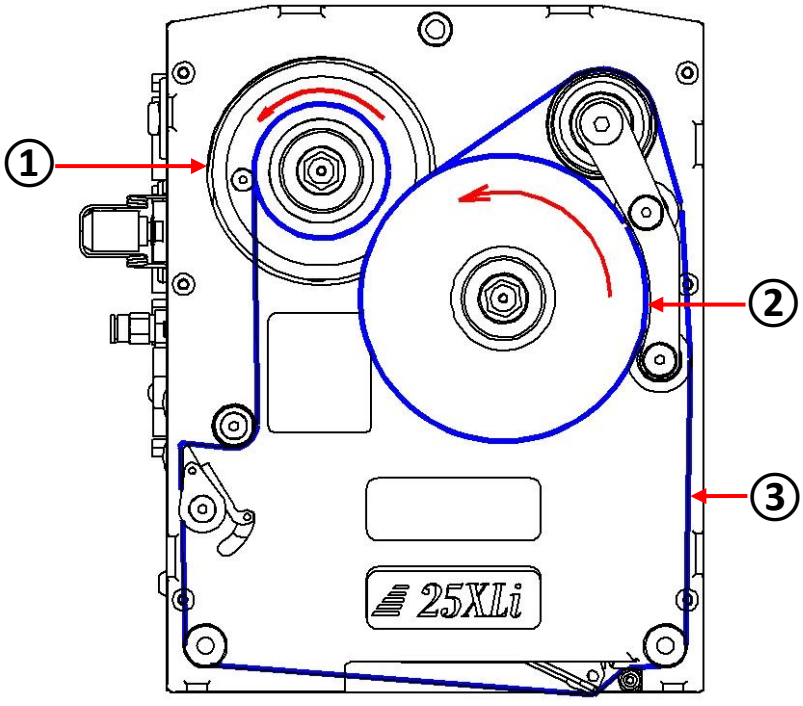


53XLC-L



25Xli:

Thread ribbon on printer as shown in schematic below. Ribbon must be supplied to Thermal Printhead with the ink side facing outwards. This ribbon routing format is commonly referred to as “ink side out”.



①	Unwind Ribbon Reel	③	Ribbon
②	Windup Ribbon Reel		

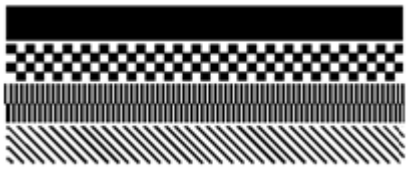
5.3 Test Print

Before making a test print check the following:

- **Printer is properly and securely mounted to support frame**
- **Air pressure is set correctly**
- **All cables and tubing are out of the way and secured in place**
- **Print platen is clean, level, and properly secured**
- **Substrate is free of dust, debris, oil, or any foreign material**
- **Cassette is locked in place**
- **Perform other safety checks per Chapter 1 of this manual**

After printer readiness check above, place a piece of label 'test paper' between the printhead and platen, then press "Test" on the PR-5 or i-View handset.

The printer will produce an image similar to that shown below:



Please refer to Chapter 6: "Error Detection and Management" for evaluating and adjusting the print quality.

5.4 Printing a Label using PR5 or i-View Handset

NOTE

Printing a label.
Please refer to the PR5 or i-View Handset User´s Guide.

5.5 Using the Ethernet and USB Ports

5.5.1 Ethernet connection

XL printers could be accessed through an Ethernet port from a computer using the following steps

Step1: Configure printer using handset

NOTE

Using handset.
Please refer to the PR5 or i-View Handset User´s Guide.

Step2: Connect printer to computer using Ethernet cable. Open your label design program.

NOTE

Using label design program.
Please refer to label design program User´s Guide.

5.5.2 USB connection

The USB functionality is a USB Virtual COM port, i.e., a COM port driver that closely resembles that of a “real serial hardware port”. In this case the baud rate is fixed to 115200 bps.

Step1: Configure printer using handset

NOTE

Using handset.
Please refer to the PR5 or i-View Handset User´s Guide.

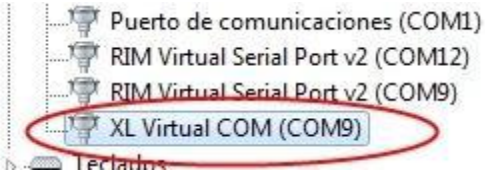
Step2: Connect printer to computer.

1. Connect printer to computer using USB A/B cable.
2. At this point the computer will ask for driver location.
3. Browse to the store media provided and select the file **fsl_ucwxp.inf** from the correct path.

   This window will appear:

Windows Security
Windows can't verify the publisher of this driver software
Don't install this driver software
You should check your manufacturer's website for updated driver software for your device.
Install this driver software anyway
Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
See details

4. Choose “**Install the driver software anyway**” and the driver installation will be completed.
5. Open “**Device manager**”, look into Ports section and check the port number assigned to XL Virtual COM (in the example below, COM9).



Open your label design program.

NOTE

Using label design program.
Please refer to label design program User´s Guide.

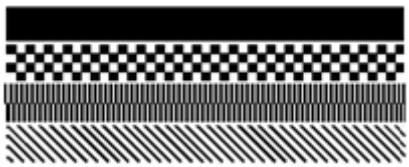
6 Error Detection and Management

Printer errors are usually identified by the error messages displayed on the PR-5 or i-View handset; you can also use the test label to observe the print quality.

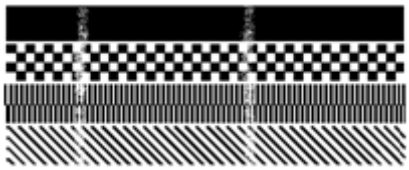
NOTE

Error messages.
Please refer to the Handset User´s Guide (PR5 / i-View) for a comprehensive description of all error messages.

Print Quality

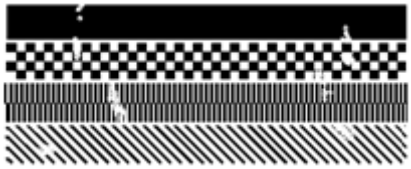


CORRECT PRINTOUT



PRINTOUT WITH BLURRY VERTICAL BANDS

The printhead needs cleaning or has suffered damage by overheating or misuse. Clean the printhead or replace it as necessary.



PRINTOUT WITH WHITE SPOTS

Shows that the print platen has surface defects such as cuts, cracks or nicks. Clean or replace print platen.

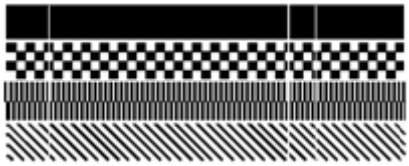


IMAGE WITH VERTICAL WHITE LINES

The printhead is coated with debris or damaged. Clean or replace as necessary.

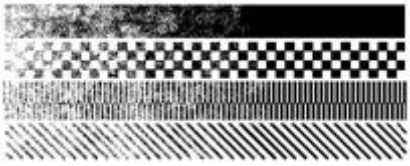


IMAGE GRADUALLY FADES

Indicates that the printhead is improperly supported or print platen out of alignment.

IMAGE INCOMPLETE

Indicates that the length of the programmed label is too short. Change program to increase label length.

Conversely, if the top of the line of the label is missing or has poor printing quality, increase the electro valve timing (*Program/Timing constants/Electro valve)* to allow for good contact between the printhead and substrate at the beginning of the print cycle.

7 Cleaning and Maintenance

⚠ CAUTION

Hazards during cleaning and maintenance activities!

Switch off the device during cleaning and maintenance work, otherwise personnel safety may be at risk and damage to the device or other nearby property may result.

- Always deactivate the power supply to the device during cleaning and maintenance activities. Pull the mains plug.
- During activities and during your absence, secure the device so that no changes may be performed by other persons or situations.
- Maintenance and cleaning work may only be performed by trained personnel.

⚠ WARNING

Possible burns!

- Wait for the printhead to cool down and reach room temperature in order to avoid possible burns

ATTENTION

Equipment damage

Electrostatic discharge can destroy electronic components.

- Always ESD grounded wriststrap when handling electronic components such as thermal printheads.

7.1 Cleaning

ATTENTION

Damage to the device due to improper cleaning

Use of improper cleaning methods and the use of incorrect cleaning agents may result in damage to electronic and mechanical components of the device.

- Disconnect the device from the power supply before you begin the cleaning.
- Follow the cleaning instructions described in the operating manual.
- Only use cleaning agents specified by the manufacturer.

7.2 Maintenance

7.2.1 Print platen / Print platen roller

1. Remove cassette or front cover (25XLi) from printer.
2. **Print platen** (intermittent printer):
   Slide print platen into open area to expose rubberized surface.
   Print platen roller (continuous printer):
   Slide printer along hanger bars to expose rubberized surface.
3. Wipe rubberized surface of print platen with isopropanol to remove any ribbon ink deposit or foreign material.
4. Slide platen back into operating position and tighten. Replace cassette or front cover (25XLi) into printer.

7.2.2 Cassette and Printhead

ATTENTION

Maintenance for printhead

Good maintenance of the printhead is essential in order to ensure optimal print quality. It must be cleaned periodically depending on the working environment and print intensity setting.

- Do not use hard or abrasive material to clean the printhead.

1. Remove cassette or front cover (25XLi) from printer.
2. Using a cotton swab or soft cloth moistened with isopropyl alcohol, wipe print edge of printhead (isopropanol) to remove debris or ribbon deposits.
3. Clean spindles, springs, etc. with isopropanol to remove any ribbon ink deposits.
4. Replace ribbon reels on spindles then insert the cassette into the printer.
5. Re-install cassette or front cover (25XLi).

7.2.3 Printhead Removal and Replacement

NOTE

Printhead removal and replacement.
We recommend you replace the printhead in a clean, spacious area free from dust and static electricity.

WARNING

Personal injury!

- Power off printer and disconnect from electrical and air supply.

WARNING

Possible burns!

- Wait for the printhead to cool down and reach room temperature in order to avoid possible burns.

ATTENTION

Equipment damage

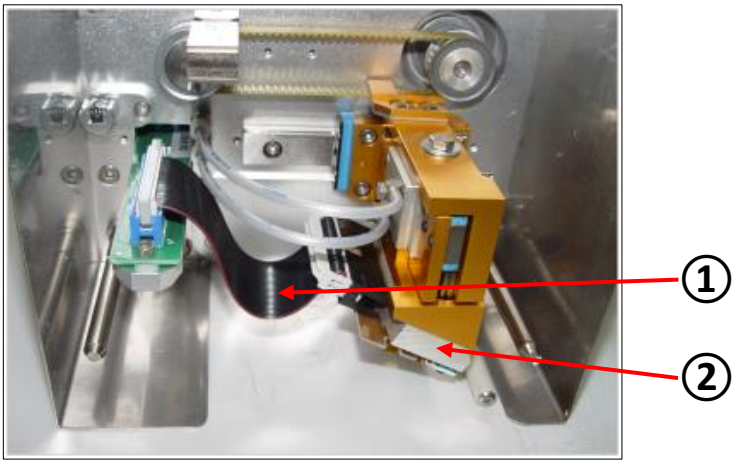
Electrostatic discharge can destroy electronic components.

- Always ESD grounded wriststrap when handling electronic components such as thermal printheads.

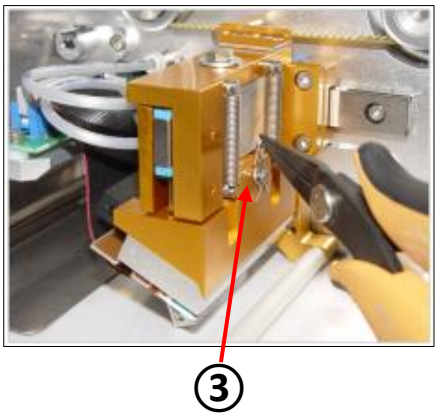
53XL80U / 53XL40 / 53XLC-R / 53XLC-L

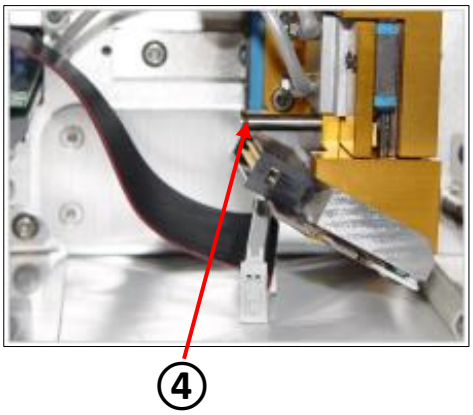
1. Remove the cassette from the printer.

2. Disconnect the flat ribbon cable ① from the printhead ②.

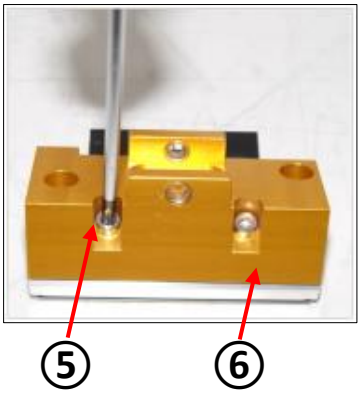


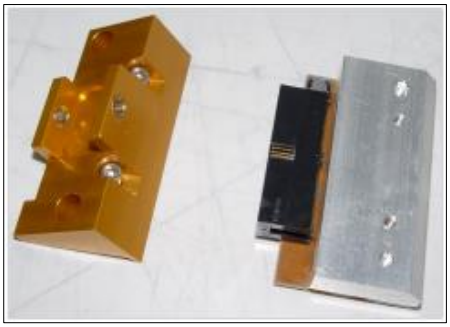
3. Use a needle nose tool to remove the spring clip ③. Remove pin ④.





4. Detach the printhead + the printhead holder ⑤. Use an Allen key to remove the two socket head cap screws M3x8 (⑥) and replace the printhead.



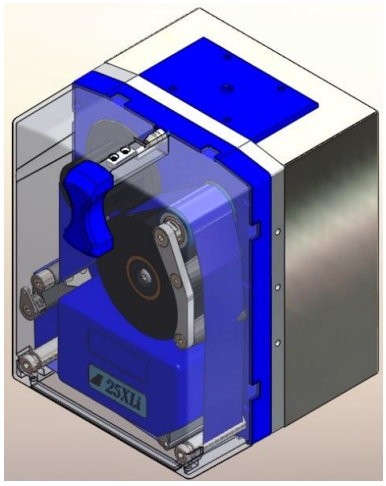


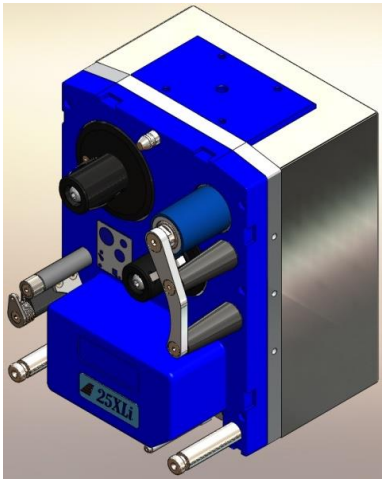
5. Screw the two socket head cap screws M3x8 back in (⑥) in order to secure the new printhead on the printhead holder ⑤.

6. Put the assembly back in position and insert the pin ④. Put the clevis back in place ③ and connect the power cable ①.

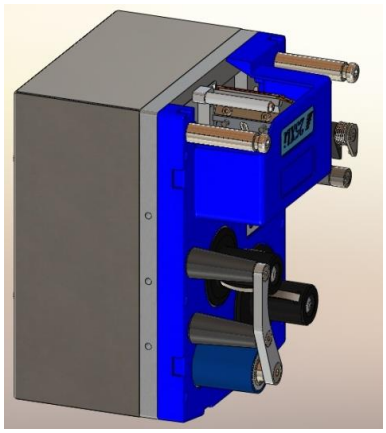
25XLi

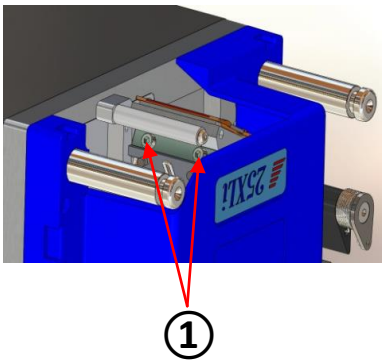
1. Remove front cover.



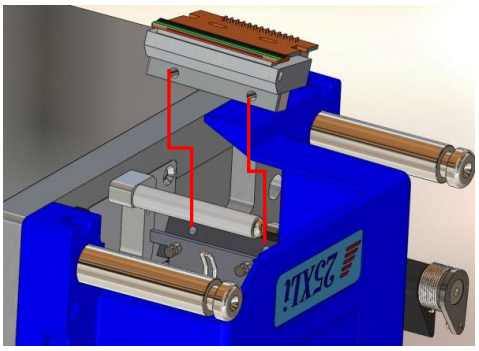


2. Remove two M3x16 socket head screws (①).





3. Detach the printhead and disconnect ribbon cable.



4. Connect cable to replacement printhead.

5. Reassemble printhead using the two M3x16 socket head screws.

7.2.4 Ribbon Tension Adjustment

NOTE

If purchased new from dealer, your printer comes factory set for your application and will not require ribbon tension adjustment. Follow steps in this section only for periodic maintenance and wear parts replacement.

ATTENTION

Do not lubricate or wet Drag Cord Slide Adjuster (DCSA) and Spring Pulley

The '**Ribbon Out**' message is displayed when the ribbon breaks **and** when the torque of the Ribbon Supply Reel Assembly is not set accurately.

Ribbon Supply Reel Assembly has been factory set for the ribbon you purchased. Procedure to set tension:

53XL80U

NOTE

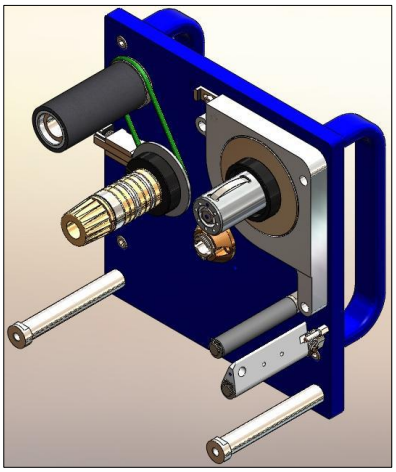
Tools required to adjust tension:

- 2.5mm Allen Wrench
- Partial Roll of Ribbon - 32mm DIA max.
- Spring Scale

NOTE

Tension

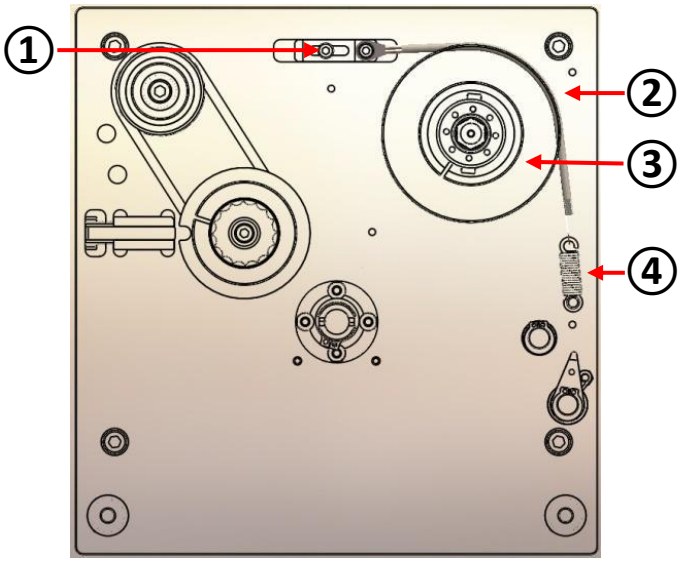
Tension for ribbon should be about 800 grams.



New 53XL80U Magazine

ATTENTION

Do not lubricate or wet DCSA and Spring Pulley.



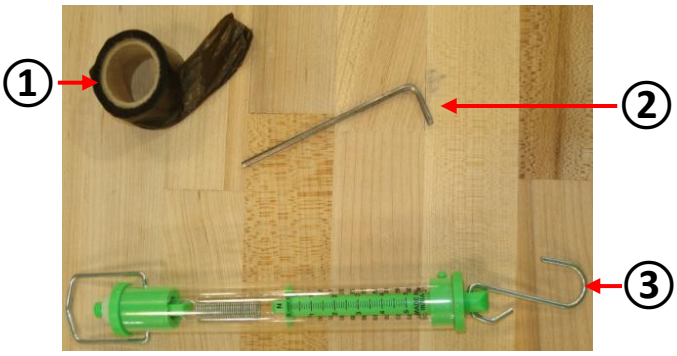
Drag Cord Slide Adjuster, Ribbon Supply Reel Assembly, and Spring Pulley

① Drag Cord Slide Adjuster

② Spring Pulley

③ Ribbon Supply Reel Assembly

④ Tension Spring

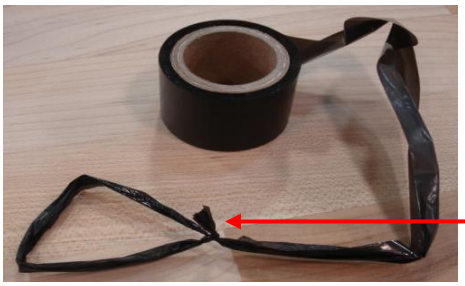


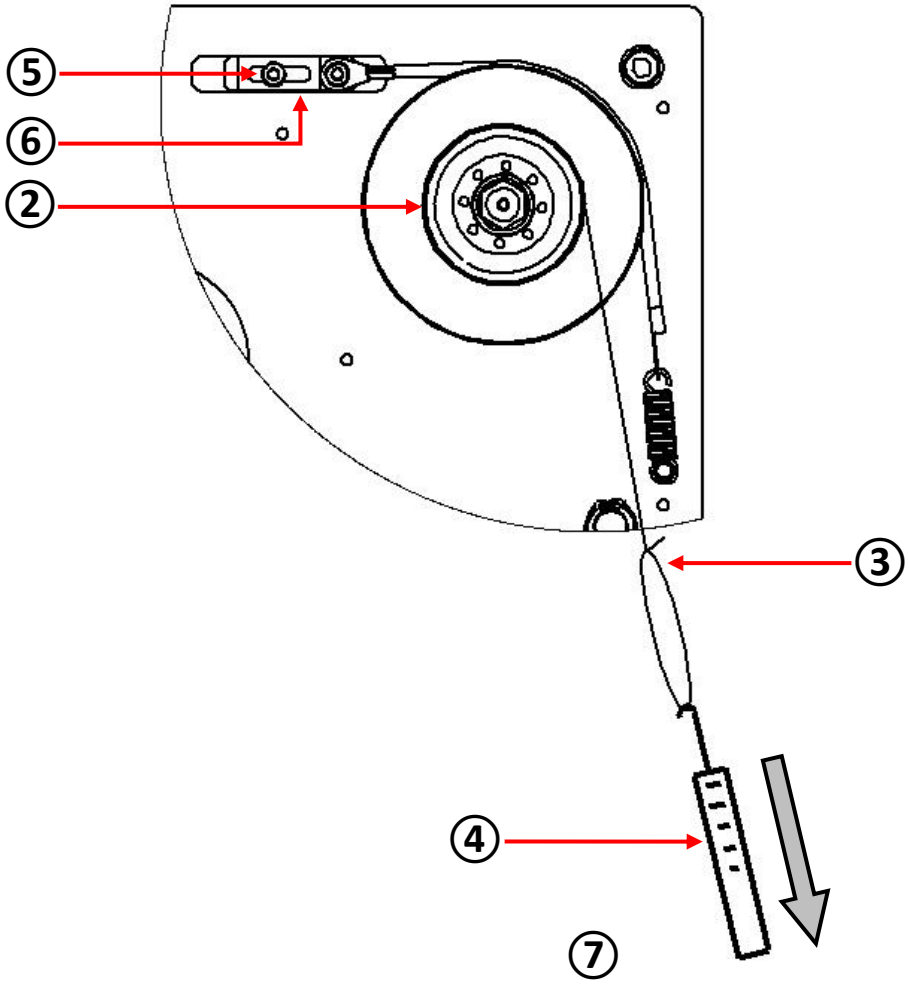
Spring Balance, Partial Roll of Ribbon, and 2.5 mm Allen Wrench.

① Partial Roll of Ribbon

② 2.5 mm Allen Wrench

③ Spring Gage (Grams)



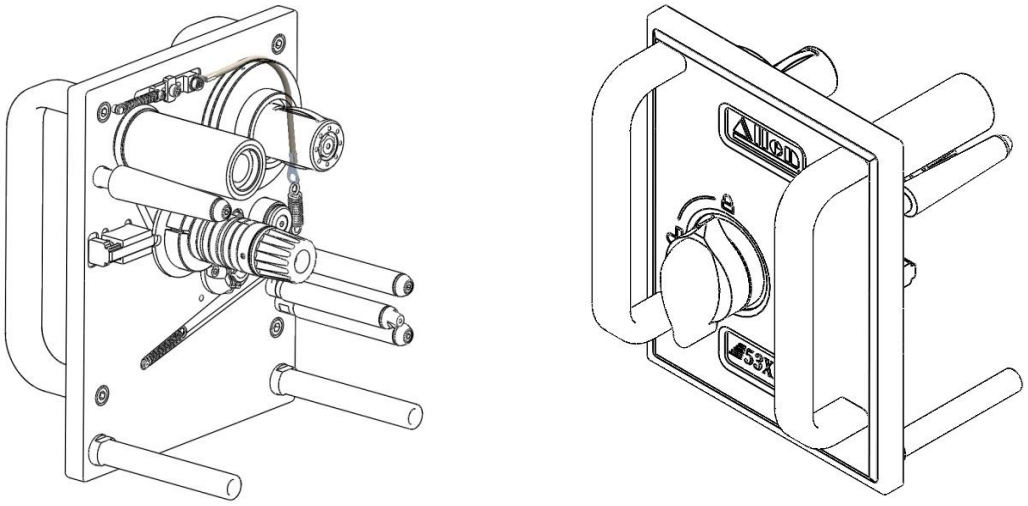


① **STEP 1:** Make loop at end of ribbon	④ **STEP 4:** Pull Gage in direction shown. Measure tension. See note below
② **STEP 2:** Place the core on Ribbon Supply Assembly	⑤ **STEP 5:** Loosen M3 socket head screw using 2.5 mm Allen Wrench
③ **STEP 3:** Engage Spring Gage into ribbon loop	⑥ **STEP 6:** Move slide adjuster until spring gage measures desired force
⑦ **REPEAT STEPS 5 & 6 until desired ribbon tension force is achieved**	

NOTE

Tension
Tension for ribbon should be about 800 grams.

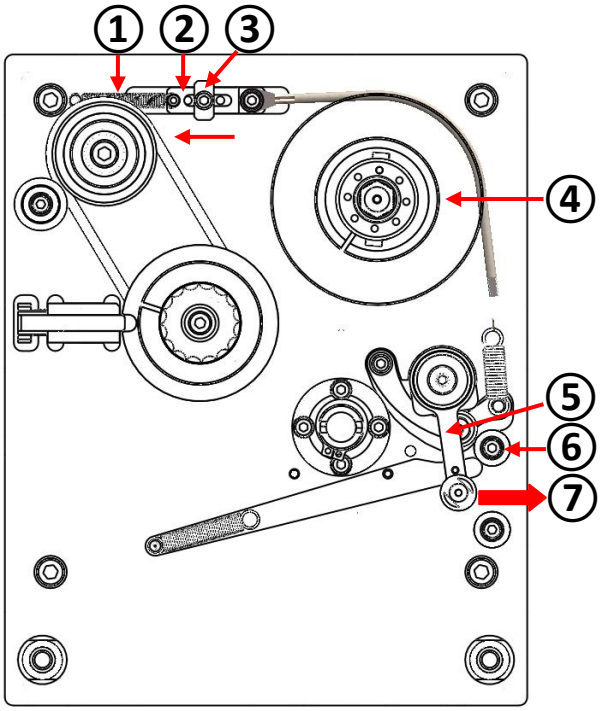
53XL40



53XL40 Magazine

ATTENTION

Do not lubricate or wet Drag Cord Braking System.



① Tension Spring A
② Drag Cord Slide Adjuster
③ M3x6 Adjusting Screw
④ Ribbon Supply Reel Assembly
⑤ Tension Control Arm
⑥ Idler Roller
⑦ Move Tension Arm

STEP 1: Loosen M3X6 Adjusting Screw to free Drag Cord Slide Adjuster. Do not remove screw completely.

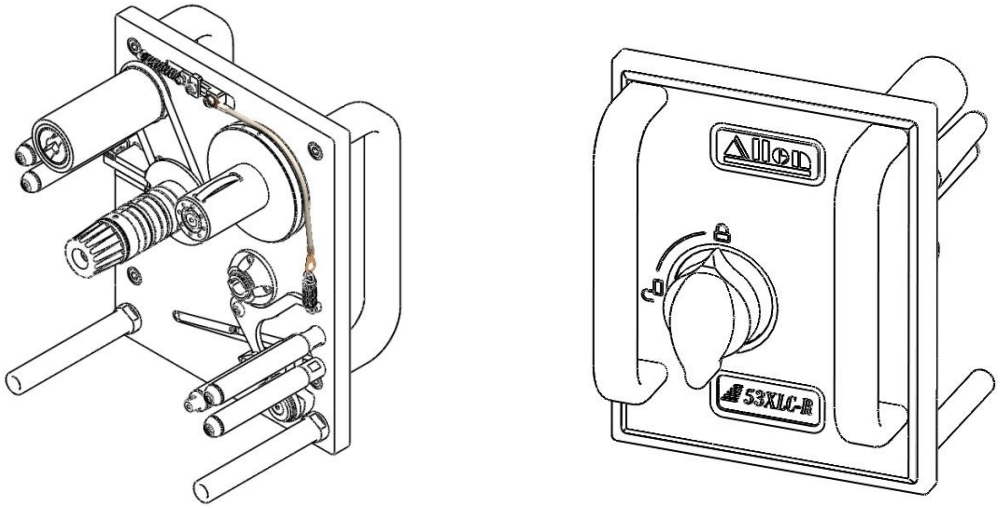
STEP 2: Move Tension Arm fully counter-clockwise to stop on idler roller shaft. This will cause Tension Spring A to pull Drag Cord Slide Adjuster in left direction to tighten the Drag Cord.

STEP 3: Tighten M3X6 Adjusting Screw.

STEP 4: Release Tension Arm.

Ribbon Tension Adjustment is now complete.

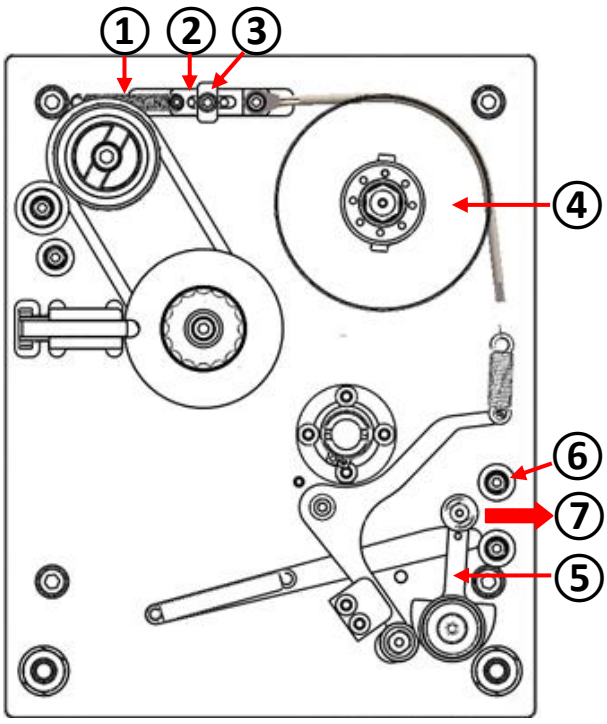
53XLC-R



53XLC-R Magazine

ATTENTION

Do not lubricate or wet Drag Cord Braking System.



1. Tension Spring A
2. Drag Cord Slide Adjuster
3. M3x6 Adjusting Screw
4. Ribbon Supply Reel Assembly
5. Tension Control Arm
6. Idler Roller
7. Move Tension Arm

STEP 1: Loosen M3X6 Adjusting Screw to free Drag Cord Slide Adjuster. Do not remove screw completely.

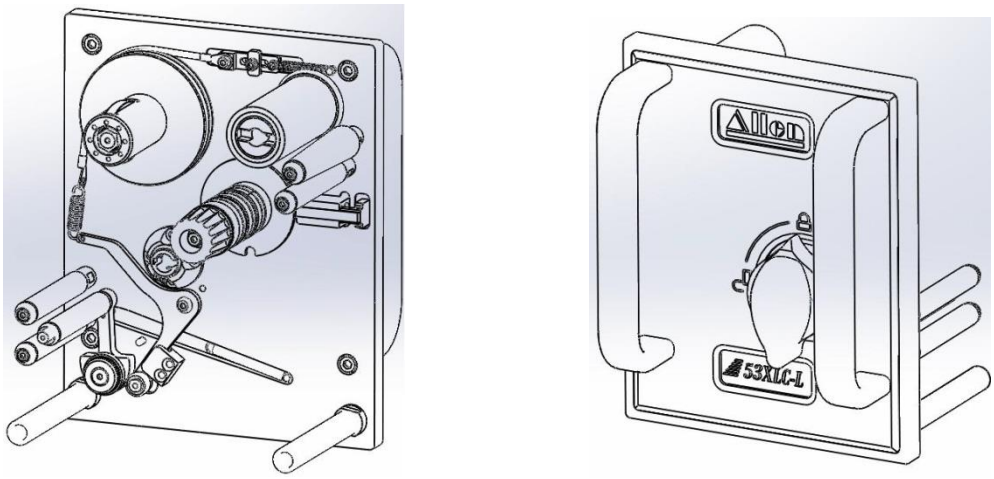
STEP 2: Move Tension Arm fully clockwise to stop on idler roller shaft. This will cause Tension Spring A to pull Drag Cord Slide Adjuster in left direction to tighten the Drag Cord.

STEP 3: Tighten M3X6 Adjusting Screw.

STEP 4: Release Tension Arm.

Ribbon Tension Adjustment is now complete.

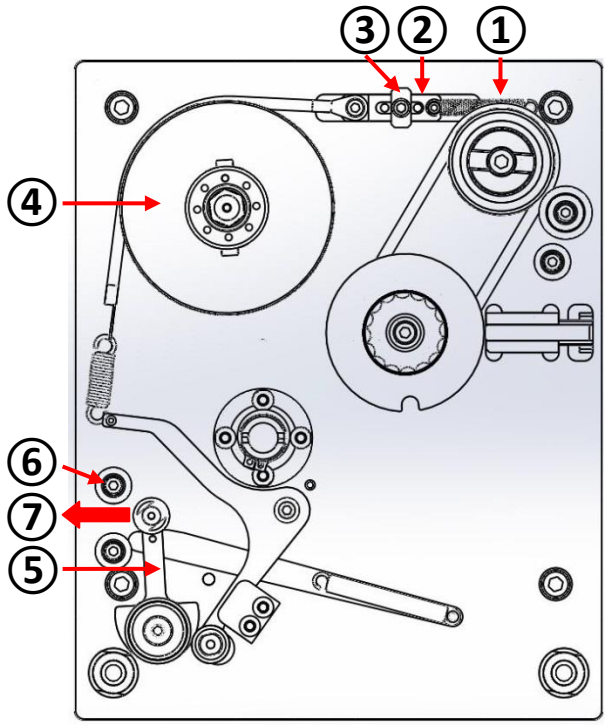
53XLC-L



53XLC-L Magazine

ATTENTION

Do not lubricate or wet Drag Cord Braking System.



① Tension Spring A
② Drag Cord Slide Adjuster
③ M3x6 Adjusting Screw
④ Ribbon Supply Reel Assembly
⑤ Tension Control Arm
⑥ Idler Roller
⑦ Move Tension Arm

STEP 1: Loosen M3X6 Adjusting Screw to free Drag Cord Slide Adjuster. Do not remove screw completely.

STEP 2: Move Tension Arm fully counter-clockwise to stop on idler roller shaft. This will cause Tension Spring A to pull Drag Cord Slide Adjuster in right direction to tighten the Drag Cord.

STEP 3: Tighten M3X6 Adjusting Screw.

STEP 4: Release Tension Arm.

Ribbon Tension Adjustment is now complete.

25Xli

NOTE

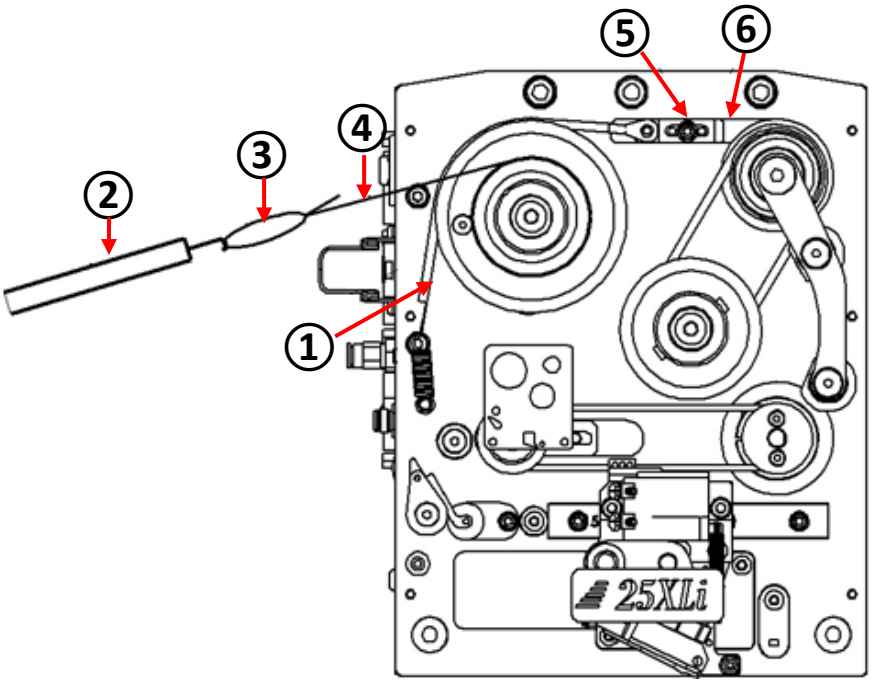
Tools required to adjust tension:

- 2.5mm Allen Wrench
- Partial Roll of Ribbon - 32mm DIA max.
- Spring Scale

STEP 1: Remove front plastic covers from printer.

STEP 2: Make loop at end of ribbon (①), and place core on Ribbon Supply spindle.

STEP 3: Engage hook of spring balance to loop of ribbon, and measure tension on precision Spring balance.



① Tension band

② Spring scale
Set of 800 grams

③ Loop

④ Ribbon

⑤ Tighten after tension set-ting

⑥ Tension adjuster
Slide for proper tension setting

NOTE

Tension
Tension for ribbon should be about 800 grams.

STEP 4: If tension is out of range as noted above, loosen socket head screw on Tension Adjuster and move it to right or left until proper tension is achieved.

STEP 5: After moving Tension Adjuster to proper position, tighten socket head screw.

STEP 6: With Tension Adjuster in new position, recheck tension on spring scale and if necessary, repeat steps 4 and 5 until proper tension is achieved.

ATTENTION

Do not lubricate tension control system.

8 Maintenance

8.1 Spare parts

Refer to the Spare Parts List under "***Spare parts***" in the Appendix.

8.2 Service address

Europe:

Germany

Allen Coding GmbH
Service Department
Friedrich-Bergius-Ring 30
D-97076 Würzburg
Tel.: +49 931 250 76 - 911
Fax +49 931 250 76 – 50
Email: support@allencoding.com

UK

Allen Coding Systems
Unit 9, Gateway 1000,
Whittle Way, Arlington Business Park,
Stevenage, Herfordshire SG1 2FP
Tel.: +44 1438 347 770
Fax +44 1438 347 771
Email: info@allencoding.co.uk

Spain

Allen Coding Systems
Carretera del Mig, 83-87
08940 Cornellà de Llobregat,
Barcelona
Tel.: +34 93 470 56 00
Fax +34 93 473 56 21
Email: informacion@allencoding.com

Website: www.AllenCoding.com

USA:

USA

Norwood Marking Systems
1 Missouri Research Park Drive
St. Charles, MO 63304
Sales: (800) 722-1125
Service: (800) 526-2431
Fax: (636) 300-2004
Email: info@itwnorwood.com

Website: www.itwnorwood.com

NOTE

Important information in case of defects
In case of defects in equipment, please provide the following information:

- Serial number
- Equipment type
- Description of fault
- Software- / Firmware-version
- Any affected components/assemblies

9 Transport and storage

9.1 Transport

⚠ WARNUNG

Hazard due to improper securing of load

Improper securing of the device during transport can result in unpredictable hazards to persons and/or property damage.

- Secure the device in accordance with instructions.
- Note also the weight information on the device provided in the Operating Manual.
- Have the device transported by a company skilled in the process.

9.2 Storage

Store the device only under the stated, permissible ambient conditions of temperature and humidity. Relevant information is found in this operating manual under "***Ambient conditions***". Protect the device against dust and dirt.

10 Disposal

The device consists of various materials which can be recycled and which have to be disposed of separately.

In the event of disposal of the device, follow the relevant legal guidelines. Since the disposal guidelines may differ from country to country, please consult with your supplier as necessary.

Notes to disposal:

- Material types should be disposed of separately. The objective should always be an environmentally compatible disposal which ensures maximum recycling of materials.
- Observe the material and disposal instructions that may be present on certain individual parts.
- Make use of the opportunity to return materials to the manufacturer or supplier.

Appendix

EC-Compliance Statement

EC-Declaration of Conformity
Printer XL-Series

ALLEN CODING
A DIVISION OF ITW

EC-Declaration of Conformity

according to EC machinery directive 2006/42/EC, Annex II A
(Translation of the EC Declaration of Conformity)

Hereby we declare that the machine named in the following adheres to the basic safety and health requirements of the EC guideline 2006/42/EC in regards to its concept, design and version that is marketed by us. Changes that have not been coordinated with us will invalidate this declaration.

Manufacturer

ITW Bay Area Labels (Shanghai)
Building #9, Section E No.353 RIYING
North Road Waigaoqiao Free Trade Zone
200131 Shanghai, China

Representative

Allen Coding GmbH
Friedrich-Bergius-Ring 30
D-97076 Würzburg

Direct: +49 931 250 76-0
Fax: +49 931 250 76-50
E-Mail: info@AllenCoding.com
Website: www.AllenCoding.com

Machine description

Function:	Thermo-Transfer Direct Printing System
Type/Model:	53XL80U
Serial number:	xxxxxxxxx
Year of construction:	2013

The conformity with addition guidelines/regulations that apply to the machine is declared

2004/108/EC (EC-EMC-Directive);
The guideline 2006/95/EC was adhered to in regards to its protection objectives;
(s. Annex, No. 1.5.1 of guideline 2006/42/EC)

The conformity of the named machine with the rules of the EC guidelines named above is proved by conformity with the following standards:

Applied harmonized standards:

EN ISO 12100:2010;
EN 60204-1:2005 + A1:2009 + Corr:2010
EN 60950-1:2006 + A11:2009 + Corr:2006 + A1:2010 + A12:2011 + AC:2011;
EN ISO 13857:2008; EN 349:1993 + A1:2008;
EN ISO 3744:2010;
EN61000-6-2:2005 + AC:2005; EN61000-6-4:2007 + A1:2011

Additional applied standards:

FCC Rules and Regulations 47 CFR Chapter 1 Part 15 Subpart B (Ed 10-01-10)

Authorized person for the technical documentation

Dirk Beseke, Friedrich-Bergius-Ring 30 / D-97076 Würzburg
(Name, Address)

Details of signatory person

Dr. Stefan Balling	R&D Manager	Alex Wu	Operations Manager
(Name of signer)	(Position)	(Name of signer)	(Position)

Signature

Signature

Würzburg, 17.10.2013
(Place, Date)

Shanghai, 17.10.2013
(Place, Date)

Allen Coding GmbH
Friedrich-Bergius-Ring 30
D-97076 Würzburg

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Fax +49 931 250 76-50

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www.AllenCoding.com

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Version: V1.03
Stand: 17.Oct 2013

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This product includes software developed by the Zint Barcode Generator Project (https://sourceforge.net/projects/zint)

Zint Backend License

libzint - the open source barcode library
Copyright (C) 2009 Robin Stuart <robin@zint.org.uk>

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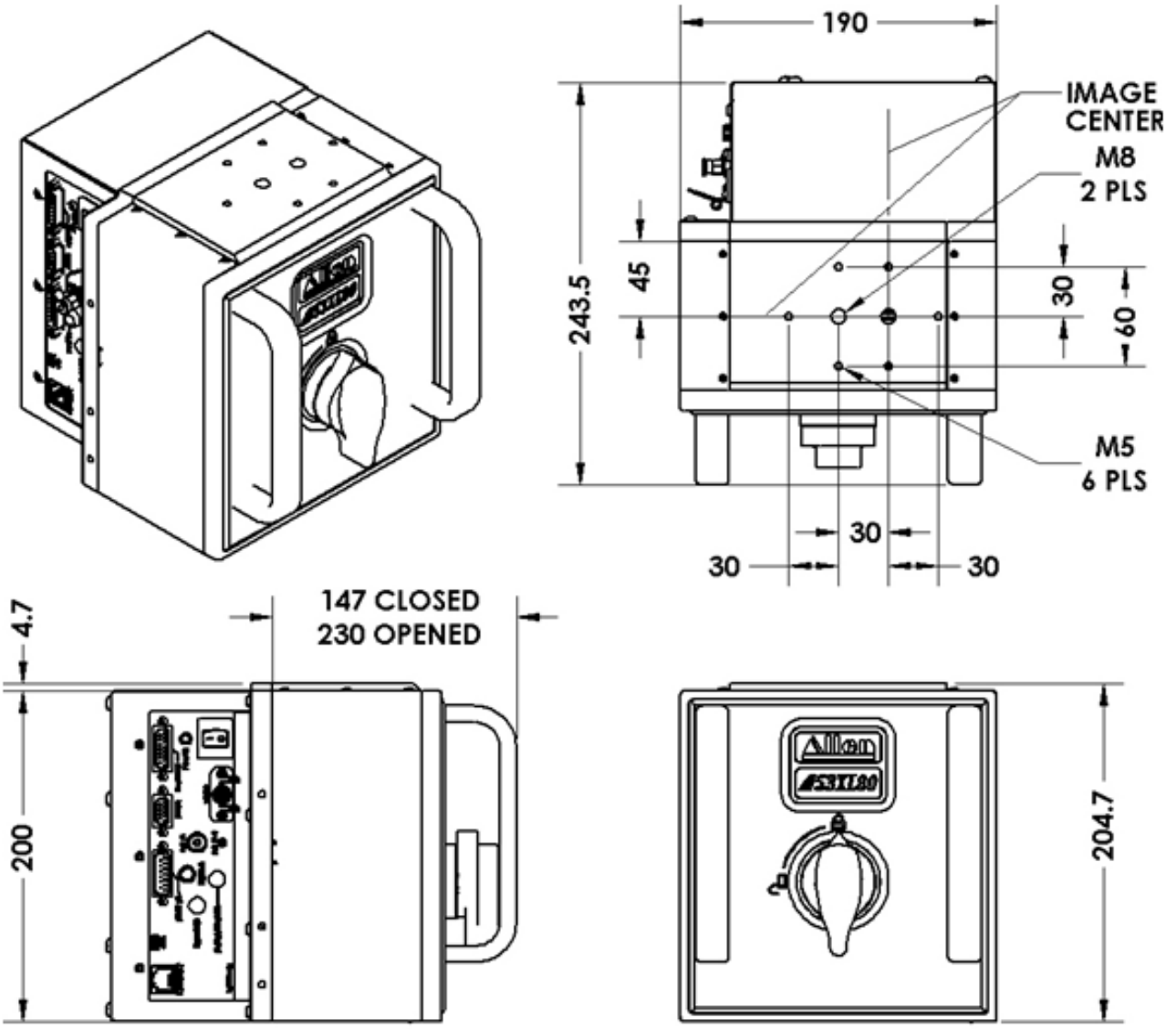
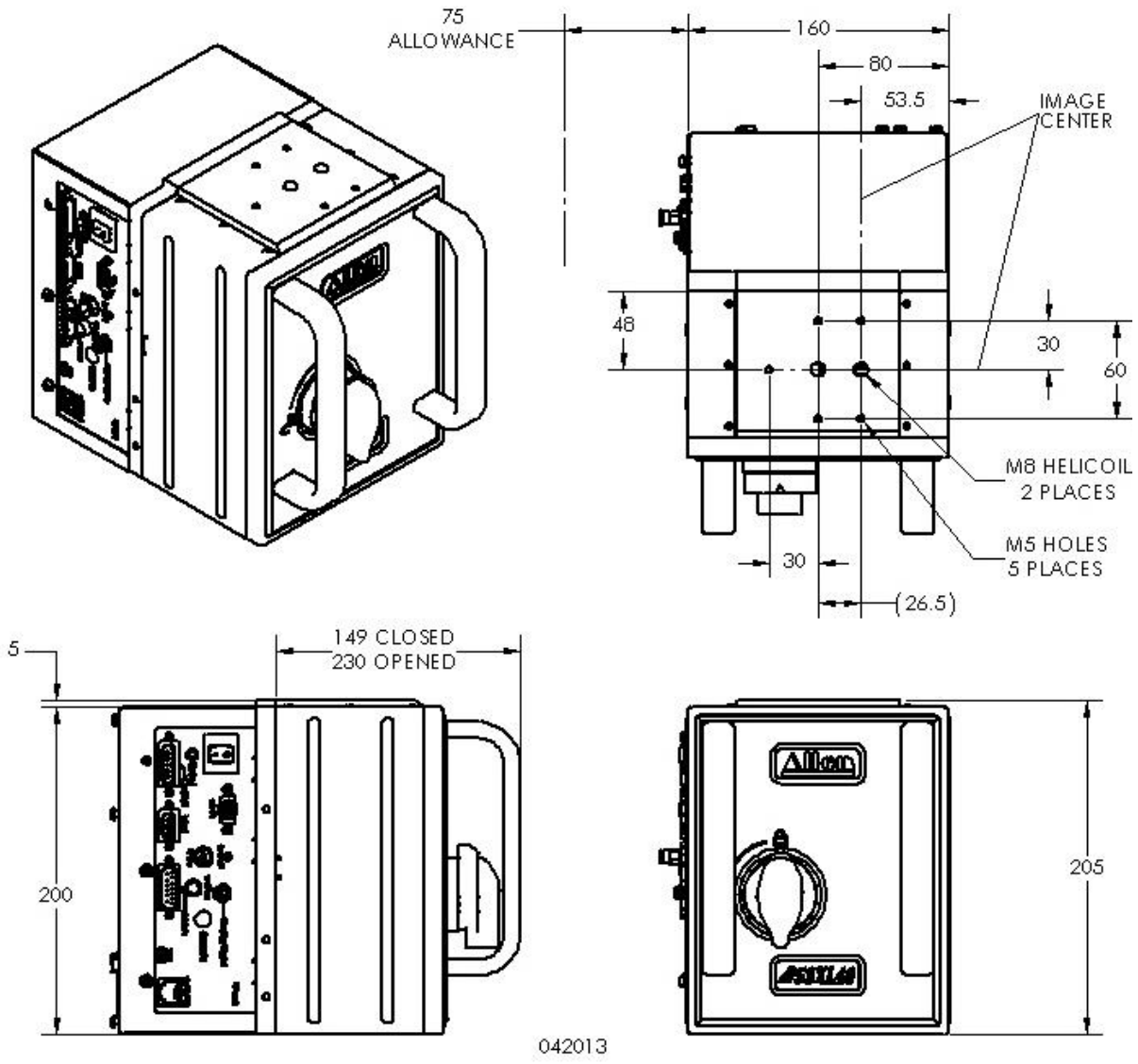
Dimensions

53XL80U:



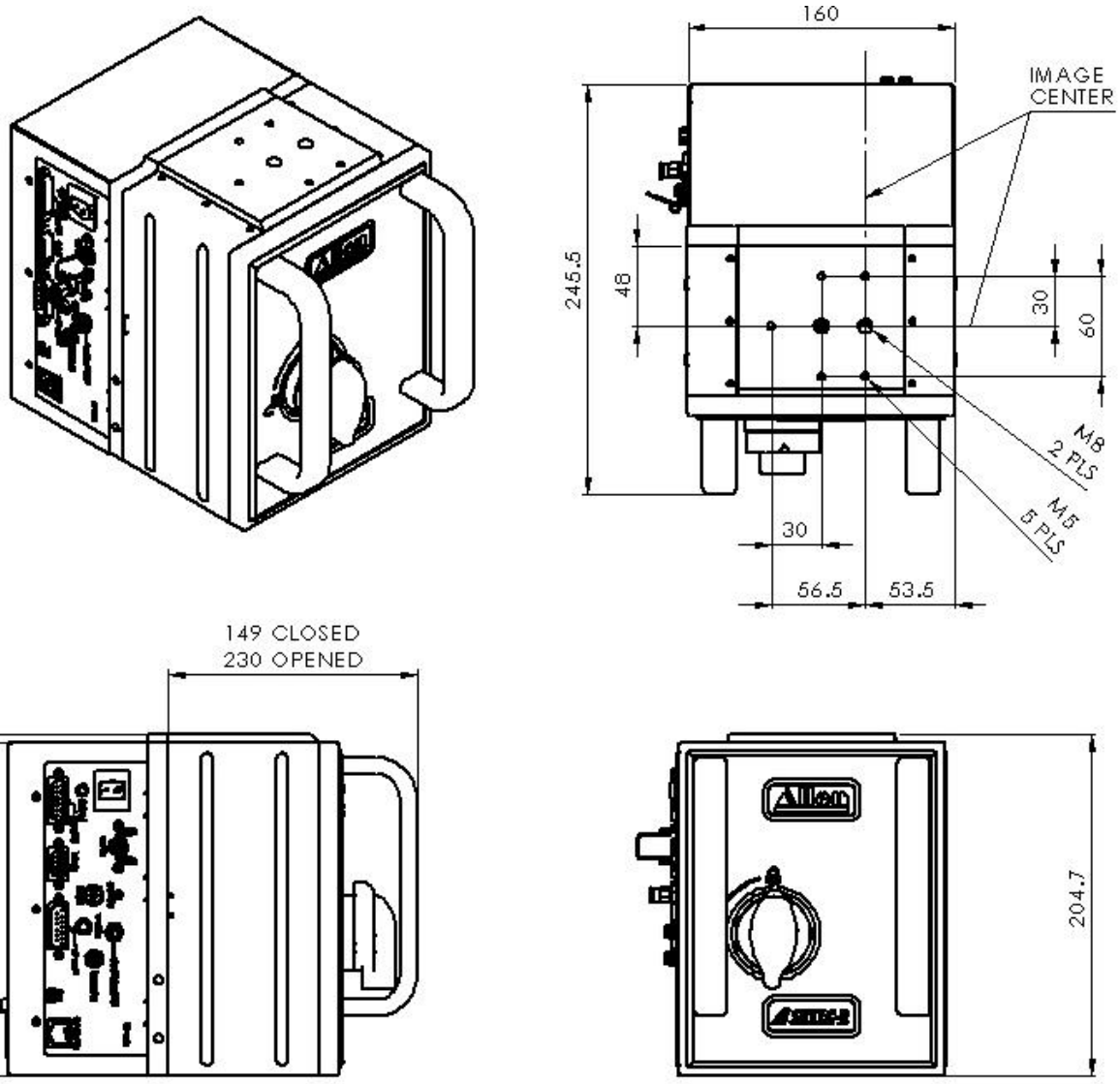
(all dimensions in millimeters)

53XL40:



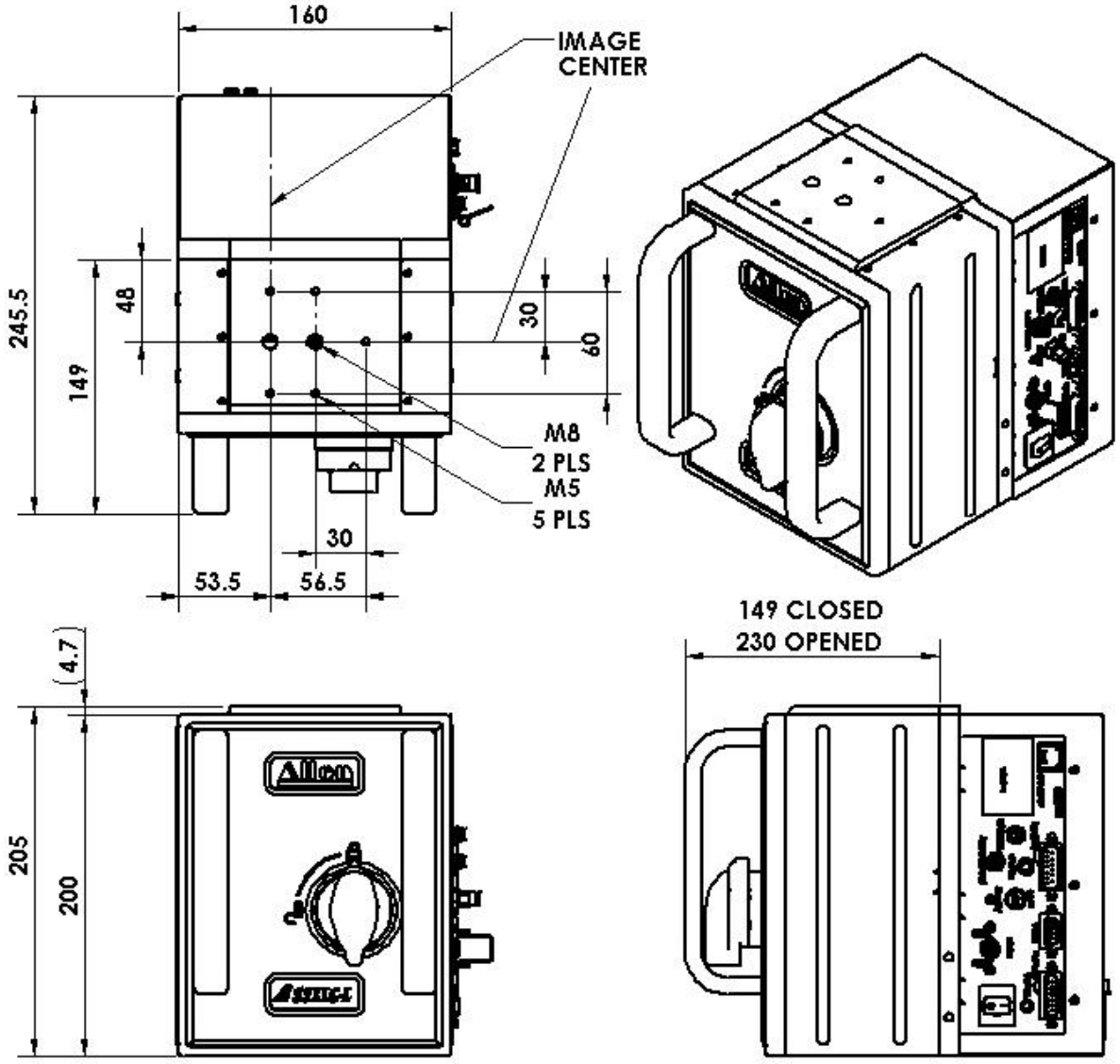
(all dimensions in millimeters)

53XLC-R:



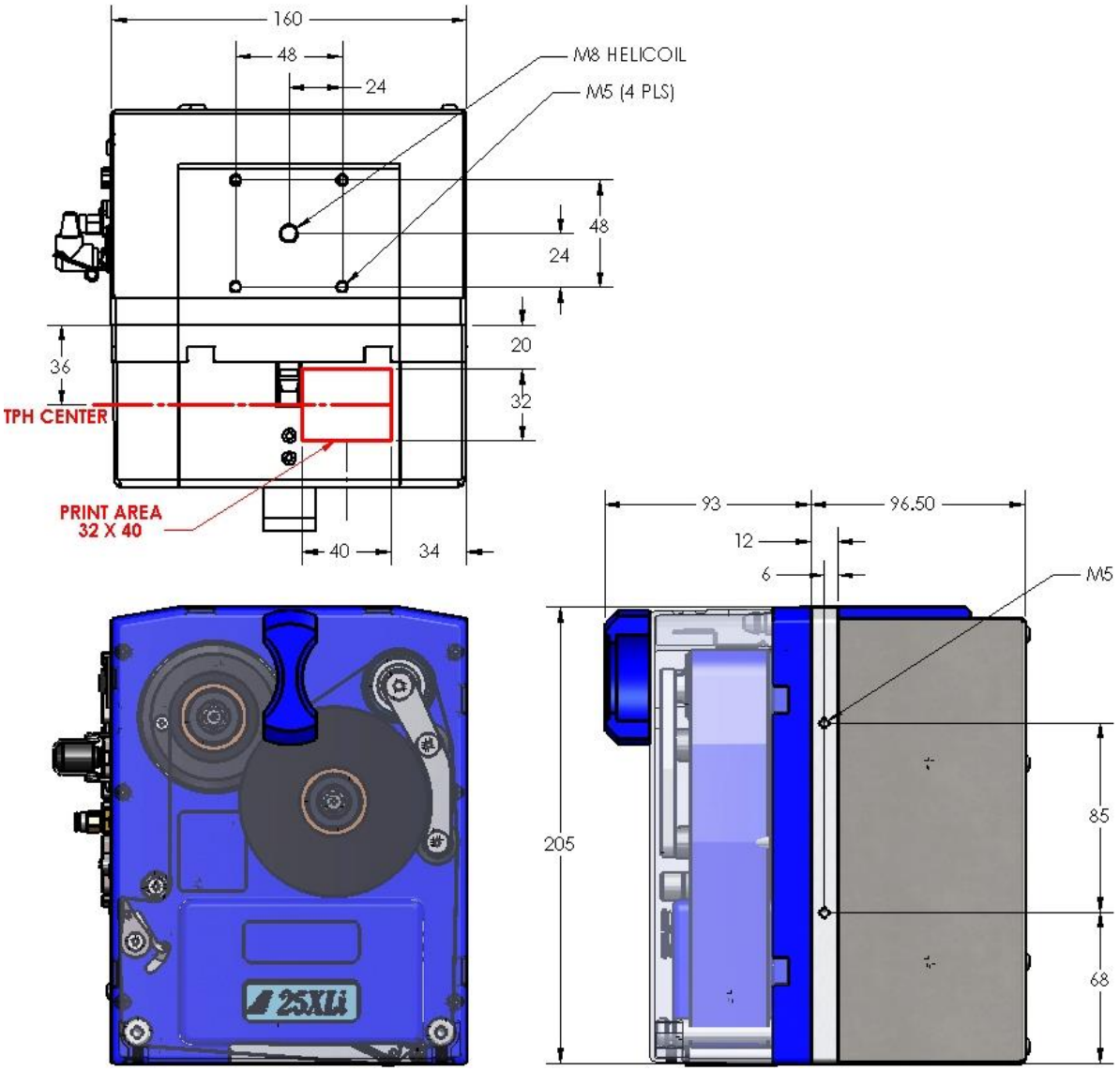
(all dimensions in millimeters)

53XLC-L:



(all dimensions in millimeters)

25XLi:



(all dimensions in millimeters)

Connection Options

Host Machine Connection Options

NOTE

Power rating of the outputs “Free / Busy” and “On cycle / Printed”:
The following limits for the outputs must not be exceeded:

$U_{max.}$ = ± 240 V
$I_{max.}$ = 80 mA

NOTE

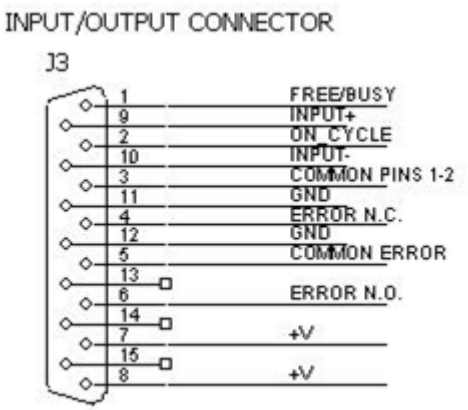
Power rating of relay signal output “Error”
The following limits for the relay-signal output must not be exceeded:

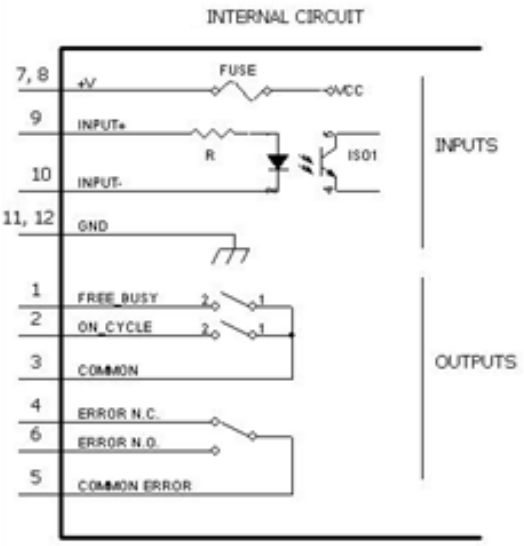
$U_{max.}$ = 250 V
$I_{max.}$ = 8 A

NOTE

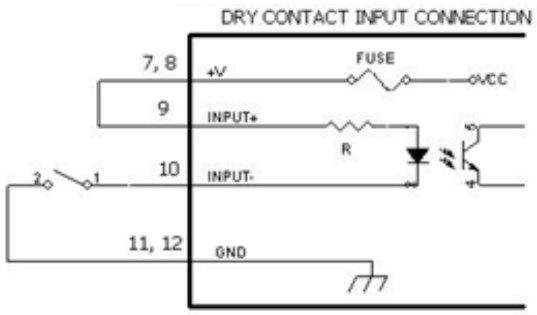
Input signal
The following limits for the input signal must not be exceeded:

$U_{max.}$ = 24 V

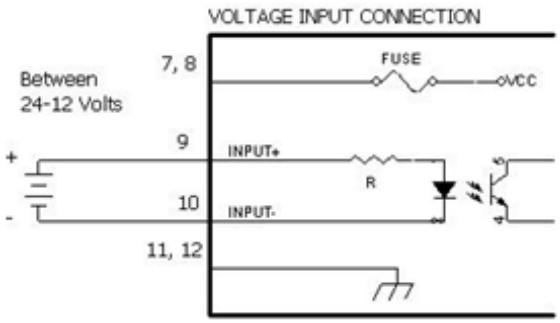




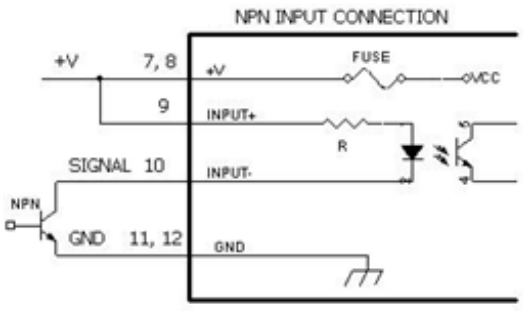
Sample print signal connections



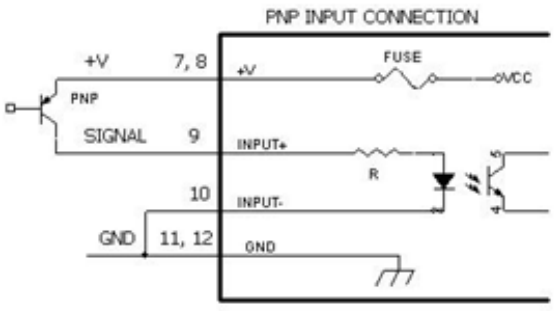
Connection to a relay output



External power source

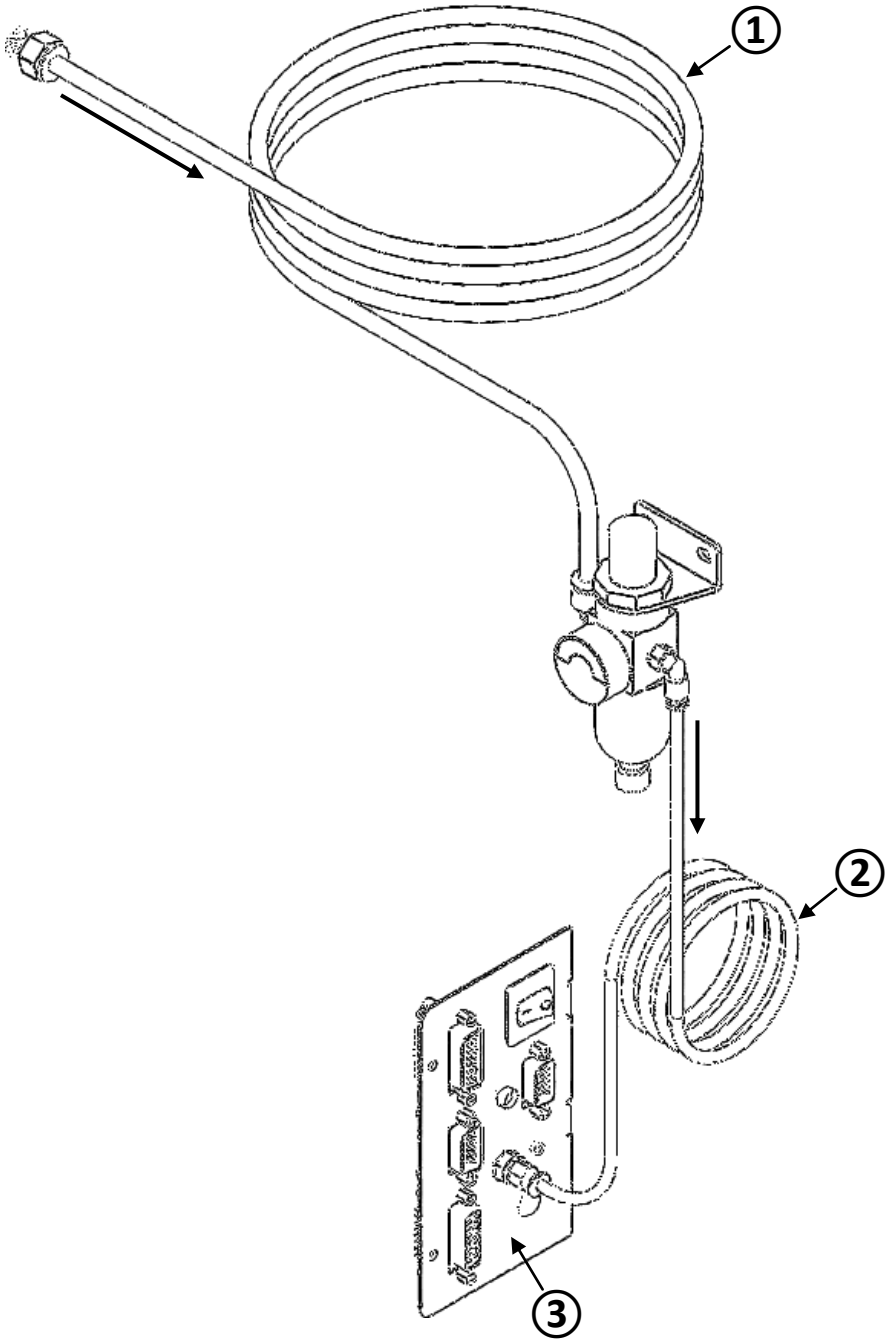


Connection to an output or NPN photocell



Connection to an input or PNP photocell

Pneumatic diagram

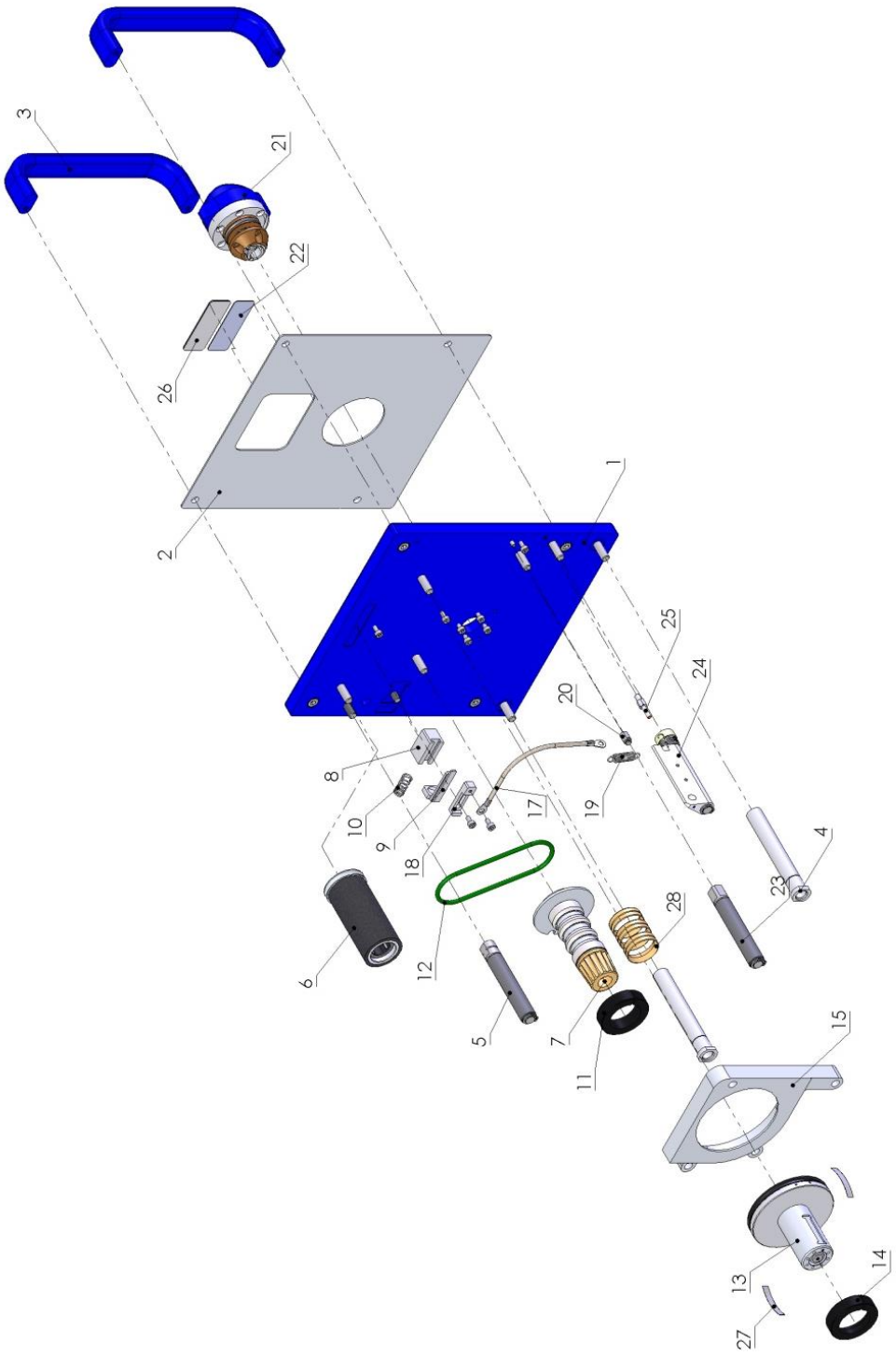


①	Air supply tubing 6mm Outside Diameter	③	Printer Connector Panel
②	Printer Air supply tubing – 4mm Outside Diameter		

Spare parts

53XL80U:

Cassette (Part No. 219555)



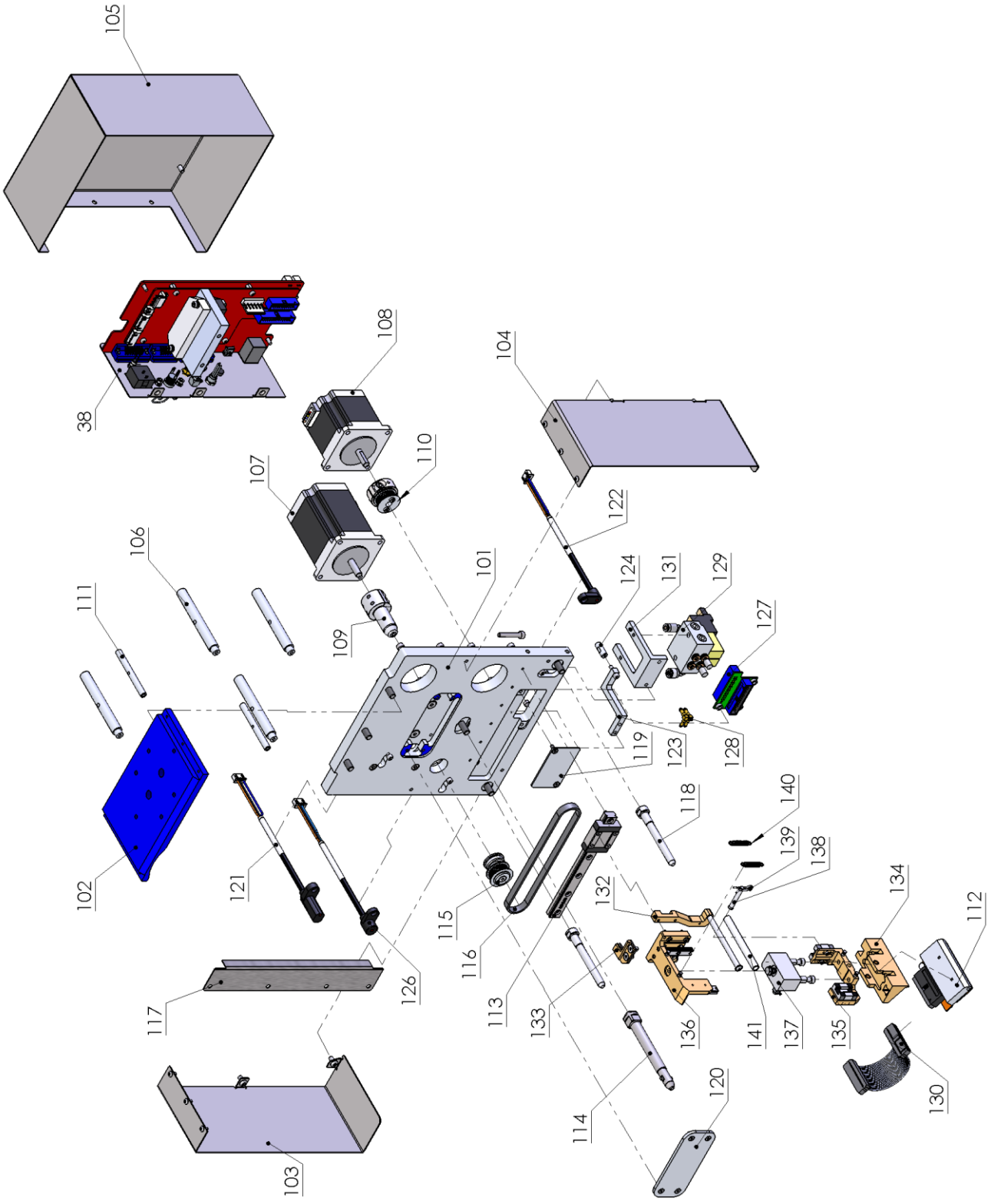
Cassette (Part No. 219555)

NOTE

QTY (Quantity)
QTY indicates how often a part is included in the corresponding assembly (exploded view).

Item No.	Part No. (Europe)	Part No. (US)	Description	QTY
4	102324	NMS-50002	SHAFT - ALIGNMENT	2
5	219543		ASSEMBLY - IDLER SHAFT ANGLED	1
6	101526	NMS-9005	ASSEMBLY - FEED ROLL	1
7, 28	102322	NMS-9003	ASSEMBLY - WINDUP SPINDLE	1
12	102053	NMS-50135A	POLYCORD DRIVE BELT	1
13, 27	102323	NMS-9004	ASSEMBLY - UNWIND SPINDLE	1
17, 19	102326	NMS-50116KIT	ASSEMBLY - DRAG CORD	1
21	219511		ASSEMBLY - XL CASSETTE LOCK	1
23	103371	NMS-9000	ASSEMBLY – IDLER ROLLER	1
24	102329	NMS-9007	ASSEMBLY - RIBBON BREAK ACTUATOR	1
27	3.0000.46005	NMS-50115	SPRING – UNWIND SPINDLE	2
OPTIONS / ACCESSORIES				
11, 14	110011	NMS-50132KIT	RINGS - SPACER	1

Engine (Part No. 219556)

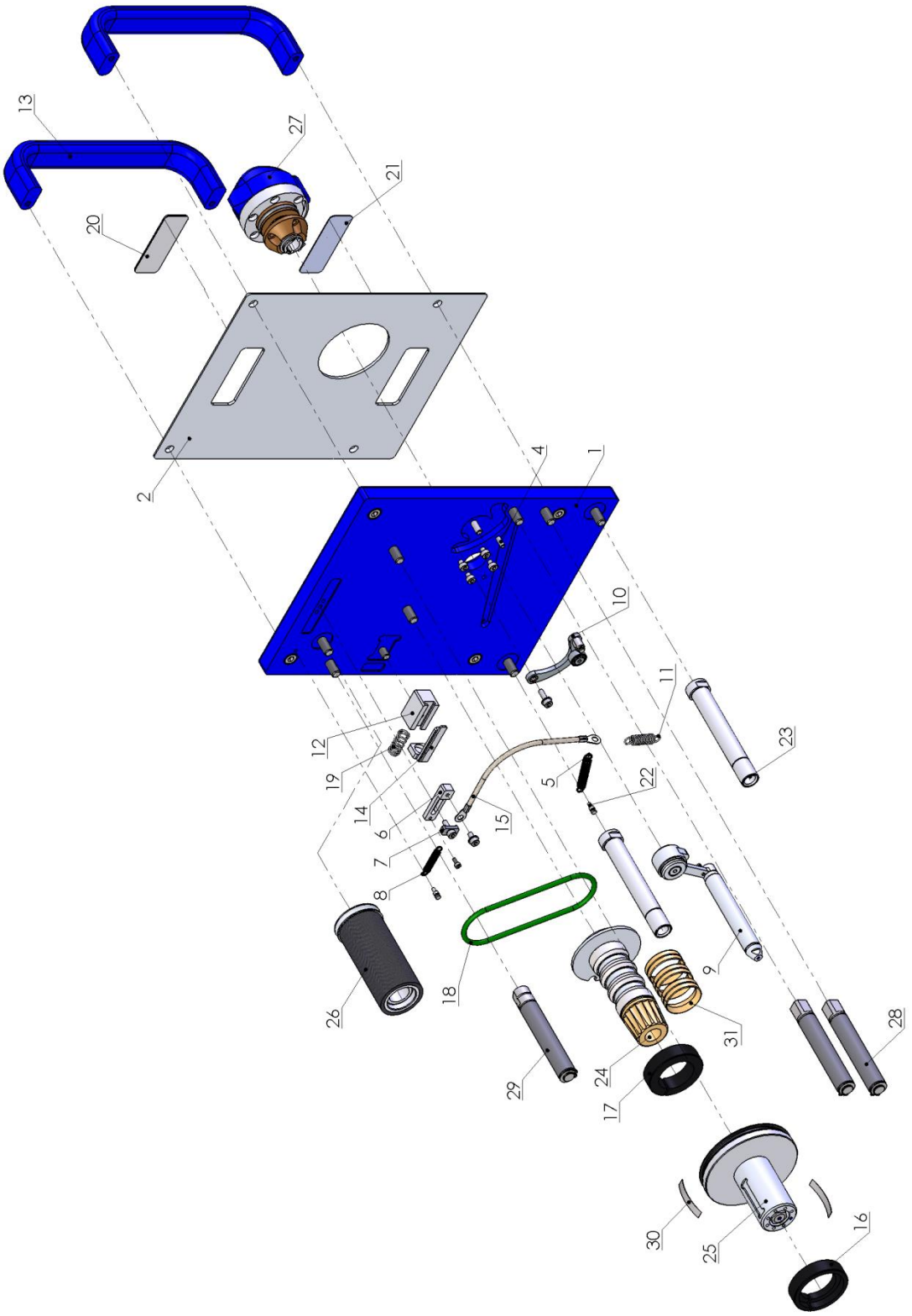


Engine (Part No. 219556)

No.	Part No. (Europe)	Part No. (US)	Description	QTY
103	103140	NMS-50053-LT	COVER – FRONT LEFT	1
104	103411	NMS-50053-RT	COVER – FRONT RIGHT	1
105	103412	NMS-50053-RR	COVER – REAR	1
107	101889	NMS-40000	STEPPER MOTOR – FEED ROLLER	1
108	101888	NMS-40001	STEPPER MOTOR – PRINTHEAD DRIVE	1
109	102337	NMS-9013	ASSEMBLY – RIBBON FEED ROLLER	1
110	102338	NMS-9014	ASSEMBLY – TPH IDLER PULLEY	1
112	101935	NMS-9040	THERMAL PRINT HEAD	1
113	102351	NMS-9029	SLIDE RAIL 53XL80	1
114	103413	6438-059-A	POST – CAM	1
115	102339	NMS-9015	ASSEMBLY - IDLER PULLEY	1
116	102427	NMS-40016	BELT – TPH DRIVE TIMING	1
121	102334	NMS-9009M	SENSOR - CASSETTE HOME	1
122	102335	NMS-9010M	SENSOR - TPH HOME	1
125	219086		ASSEMBLY - LTU PCB	1
126	102336	NMS-9011M	SENSOR - RIBBON BREAK	1
127	101492	NMS-9051	TPH CONNECTOR PCB	1
129	102341	NMS-9039	ASSEMBLY – PNEUMATIC VALVE	1
130	219095		CABLE - 53XL80 TPH / CONNECTOR PCB	1
131	103414	NMS-50163	BRACKET - VALVE SUPPORT – XL80	1
132, 141	219526		ASSEMBLY - TPH PEEL BAR	1
133	219527		ASSEMBLY - TPH BELT GRIPPER	1
134	219528		ASSEMBLY - PRINTHEAD MOUNTING	1
113, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141	103372		ASSEMBLY - TPH – 53XL80	1
138	103415	NMS-50166	SHAFT - PIVOT	1
139	103416	NMS-50167	CLIP - PIVOT PIN	1
140	110193	NMS-50168	TENSION SPRING - TPH	2
OPTIONS / ACCESSORIES				
	103309		HEATER - ENGINE PLATE	1
	103395		BACKUP PAD	1
6, 12, 17, 28, 116, 130, 138, 139, 140, 141	219127		53XL80 SERVICE PARTS KIT	1

53XL40:

Cassette (Part No. 219550)



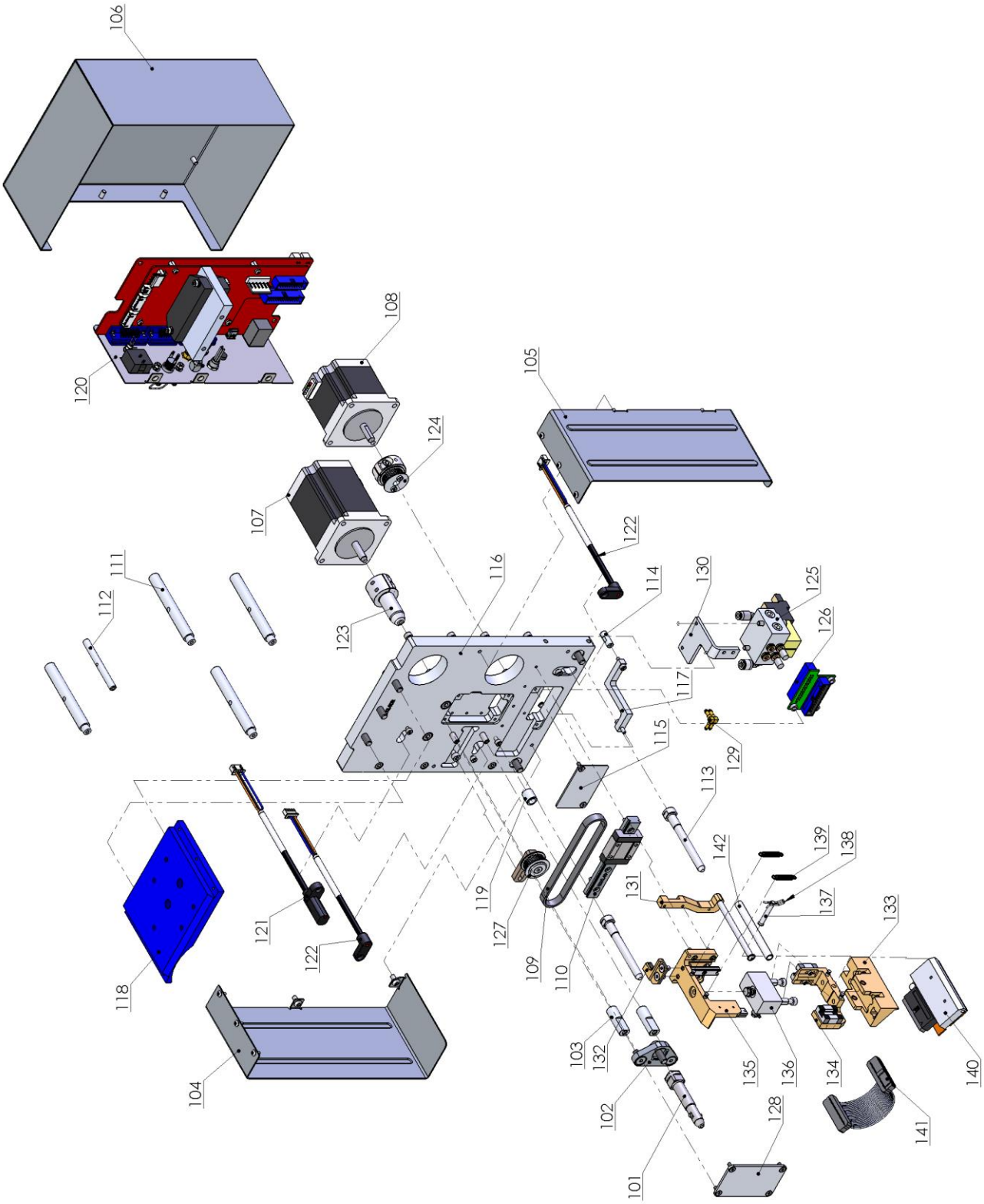
Cassette (Part No. 219550)

NOTE

QTY (Quantity)
QTY indicates how often a part is included in the corresponding assembly (exploded view).

Item No.	Part No. (Europe)	Part No. (US)	Description	QTY
5	215352		SPRING - XL40 TENSION ARM	1
9	219075		ASSEMBLY - DANCER ARM	1
10	219076		ASSEMBLY - BRAKE ARM	1
11, 15	102326	NMS-50116KIT	ASSEMBLY - DRAG CORD	1
18	102053	NMS-50135A	POLYCORD DRIVE BELT	1
23	110181	NMS-50240	PIN - CASSETTE ALIGNMENT	2
24	102322	NMS-9003	ASSEMBLY - WINDUP SPINDLE	1
25, 30	102323	NMS-9004	ASSEMBLY - UNWIND SPINDLE	1
26	101526	NMS-9005	ASSEMBLY - FEED ROLL	1
27	219511		ASSEMBLY - XL CASSETTE LOCK	1
28	103371	NMS-9000	ASSEMBLY - IDLER ROLLER	2
29	219543		ASSEMBLY - IDLER SHAFT ANGLED	1
30	3.0000.46005	NMS-50115	SPRING – UNWIND SPINDLE	2
OPTIONS / ACCESSORIES				
16, 17	110011	NMS-50132KIT	RINGS - SPACER	1

Engine (Part No. 219551)

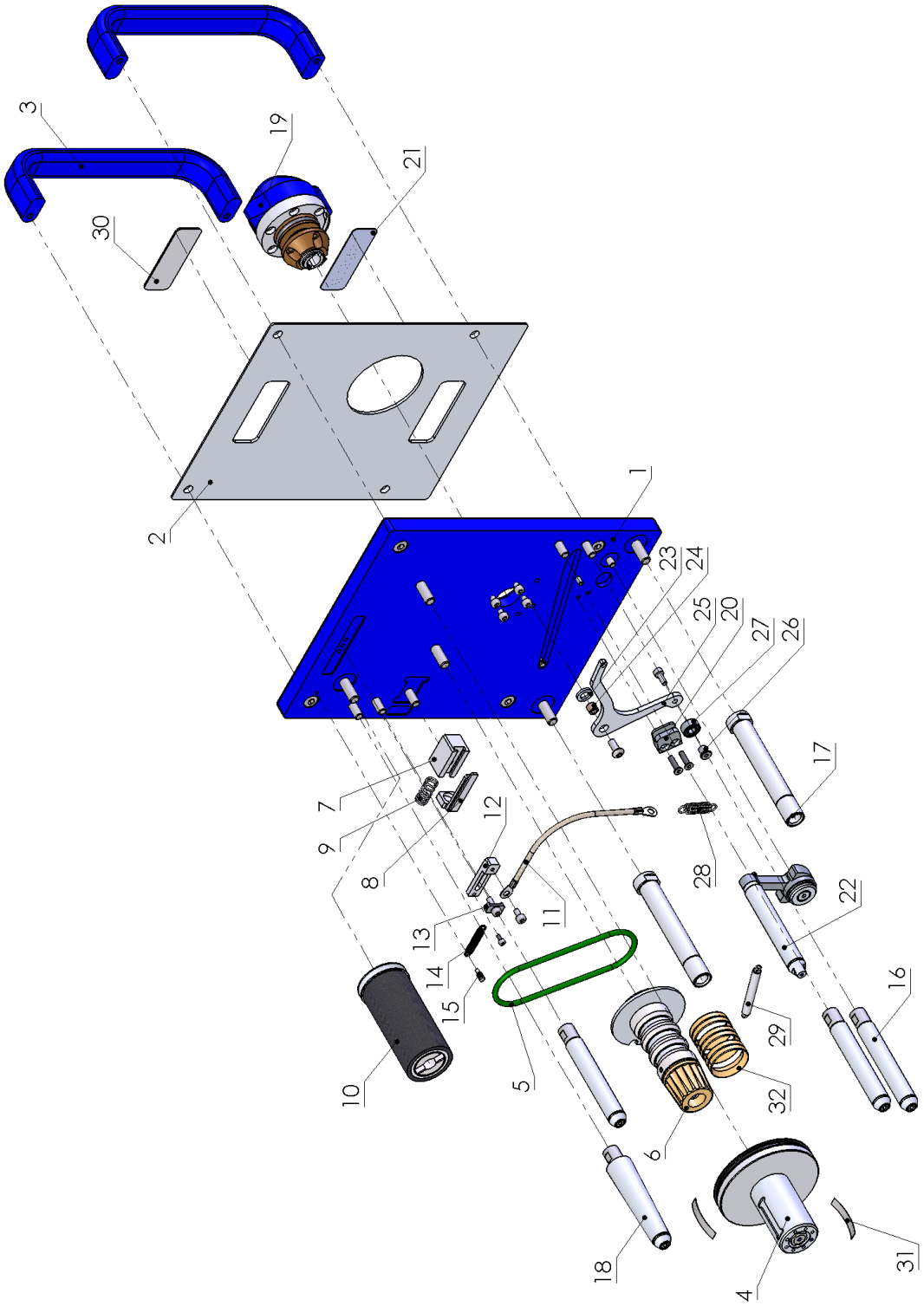


Engine (Part No. 219551)

No.	Part No. (Europe)	Part No. (US)	Description	QTY
101	215319		POST - CAM	1
102	215320		PLATE - CAM POST	1
103	215321		STANDOFF - CAM POST MTG PLATE	2
104	215331		COVER - FRONT LEFT - RH	1
105	215332		COVER - FRONT RIGHT - RH	1
106	215335		REAR COVER - RH	1
107	101889	NMS-40000	STEPPER MOTOR – FEED ROLLER	1
108	101888	NMS-40001	STEPPER MOTOR – PRINTHEAD DRIVE	1
109	102426	NMS-40002	BELT – TPH DRIVE TIMING	1
110	219517		RAIL - TPH HORIZONTAL	1
120	219086		ASSEMBLY - LTU PCB	1
121	102334	NMS-9009M	SENSOR - CASSETTE HOME	1
122	102335	NMS-9010M	SENSOR - TPH HOME	2
123	102337	NMS-9013	ASSEMBLY – RIBBON FEED ROLLER	1
124	102338	NMS-9014	ASSEMBLY - PRINTHEAD DRIVE PULLEY	1
125	102341	NMS-9039	ASSEMBLY – PNEUMATIC VALVE	1
126	101492	NMS-9051	TPH CONNECTOR PCB	1
127	110192	NMS-9060	ASSEMBLY - IDLER PULLEY	1
130	103417	NMS-50238	BRACKET - VALVE SUPPORT - XL40	1
131, 142	219526		ASSEMBLY - TPH PEEL BAR	1
132	219527		ASSEMBLY - TPH BELT GRIPPER	1
133	219528		ASSEMBLY - PRINTHEAD MOUNTING	1
110, 131, 132, 133, 134, 135, 136, 137, 138, 139, 142	219072		ASSEMBLY - TPH - XL SERIES	1
137	103415	NMS-50166	SHAFT - PIVOT	1
138	103416	NMS-50167	CLIP - PIVOT PIN	1
139	110193	NMS-50168	TENSION SPRING - TPH	2
140	101935	NMS-9040	THERMAL PRINT HEAD	1
141	219096		CABLE - 53XL40 TPH / CONNECTOR PCB	1
OPTIONS / ACCESSORIES				
	103309		HEATER - ENGINE PLATE	1
	103395		BACKUP PAD	1
15, 18, 26, 31, 109, 137, 138, 139, 141, 142	219117		53XL40 SERVICE PARTS KIT	1

53XLC-R:

Cassette (Part No. 219560)



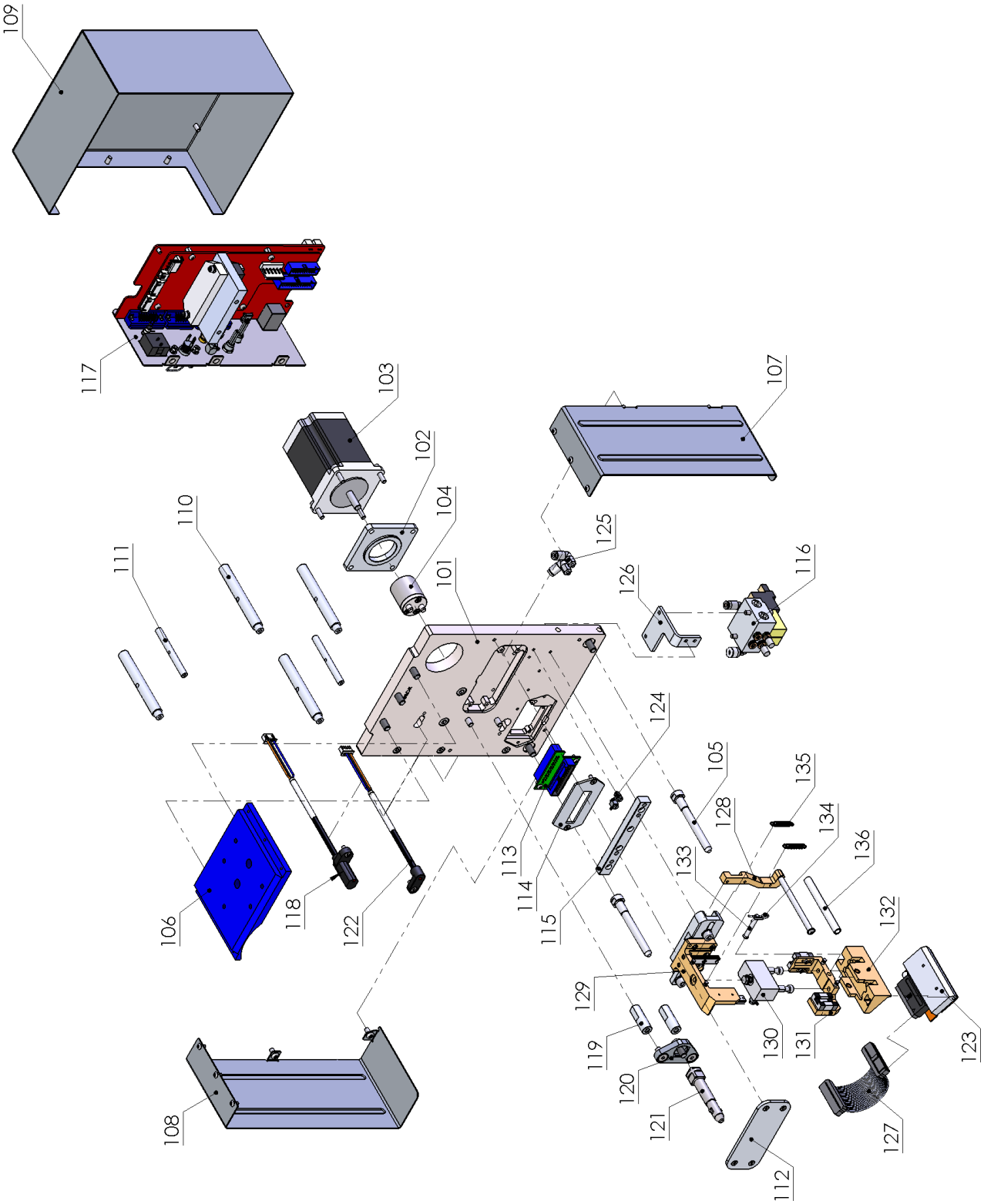
Cassette (Part No. 219560)

NOTE

QTY (Quantity)
QTY indicates how often a part is included in the corresponding assembly (exploded view).

Item No.	Part No. (Europe)	Part No. (US)	Description	QTY
4, 31	102323	NMS-9004	ASSEMBLY - UNWIND SPINDLE	1
5	102053	NMS-50135A	POLYCORD DRIVE BELT	1
6, 32	219524		ASSEMBLY - WINDUP SPINDLE - XLCR	1
10	219523		ASSEMBLY - FEED ROLL - XLCR	1
11, 28	102326	NMS-50116KIT	ASSEMBLY - DRAG CORD	1
16	110196	NMS-9054	ASSEMBLY - IDLER SHAFT	3
17	110181	NMS-50240	PIN - CASSETTE ALIGNMENT	2
18	219077		ASSEMBLY – TAPERED IDLER SHAFT	1
19	219511		ASSEMBLY - XL CASSETTE LOCK	1
22	219063		ASSEMBLY - DANCER ARM	1
23, 24, 25, 26, 27	103369		ASSEMBLY - BRAKE ARM	1
29	215381		SPRING - TENSION CONTROL	1
31	3.0000.46005	NMS-50115	SPRING – UNWIND SPINDLE	2

Engine (Part No. 219561)

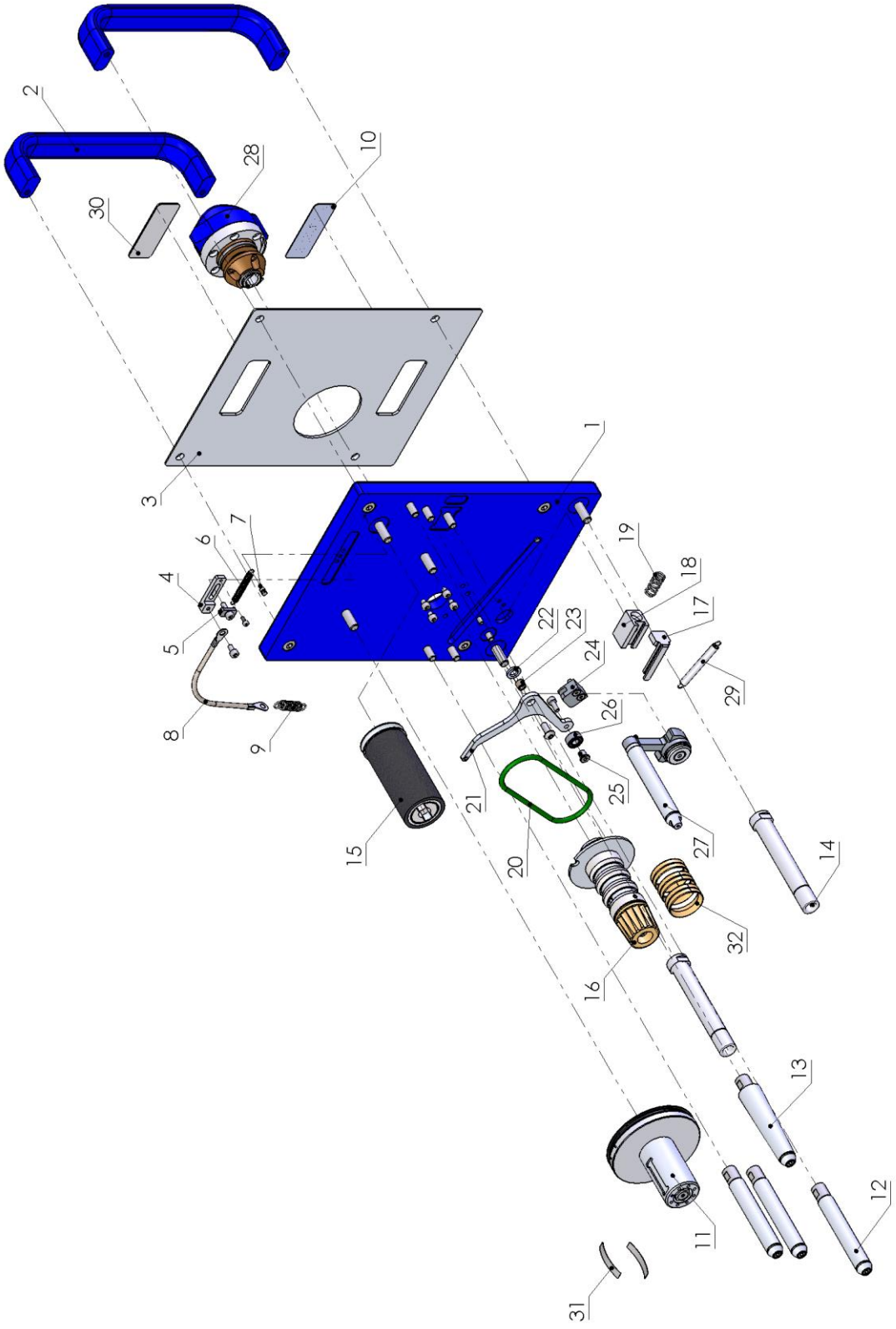


Engine (Part No. 219561)

No.	Part No. (Europe)	Part No. (US)	Description	QTY
103	101889	NMS-40000	STEPPER MOTOR – FEED ROLLER	1
104	103418	NMS-9053-XLC	ASSEMBLY – FEED ROLLER DRIVE COG	1
107	215332		COVER - FRONT RIGHT - RH	1
108	215331		COVER - FRONT LEFT - RH	1
109	215335		REAR COVER - RH	1
113	219534		TPH CONNECTOR PCB	1
115	103419	NMS-50175	RAIL - TPH ASSY MTG	1
116	102341	NMS-9039	ASSEMBLY – PNEUMATIC VALVE	1
117	219099		ASSEMBLY - LTU PCB XLC	1
118	102334	NMS-9009M	SENSOR - CASSETTE HOME	1
119	215321		STANDOFF - CAM POST MTG PLATE	2
120	215320		PLATE - CAM POST	1
121	215319		POST - CAM	1
122	102335	NMS-9010M	SENSOR - TPH HOME	1
123	101935	NMS-9040	THERMAL PRINT HEAD	1
126	103417	NMS-50238	BRACKET - VALVE SUPPORT - XL40	1
127	219531		CABLE - 53XLCR TPH / CONNECTOR PCB	1
128, 136	219526		ASSEMBLY - TPH PEEL BAR	1
132	219528		ASSEMBLY - PRINTHEAD MOUNTING	1
128, 129, 130, 131, 132, 133, 134, 135	219078		ASSEMBLY - TPH - XL SERIES	1
133	103415	NMS-50166	SHAFT - PIVOT	1
134	103416	NMS-50167	CLIP - PIVOT PIN	1
135	110193	NMS-50168	TENSION SPRING - TPH	2
OPTIONS / ACCESSORIES				
	103309		HEATER - ENGINE PLATE	1
5, 10, 11, 32, 127, 133, 134, 135, 136	219137		53XLCR SERVICE PARTS KIT	1

53XLC-L:

Cassette (Part No. 219565)



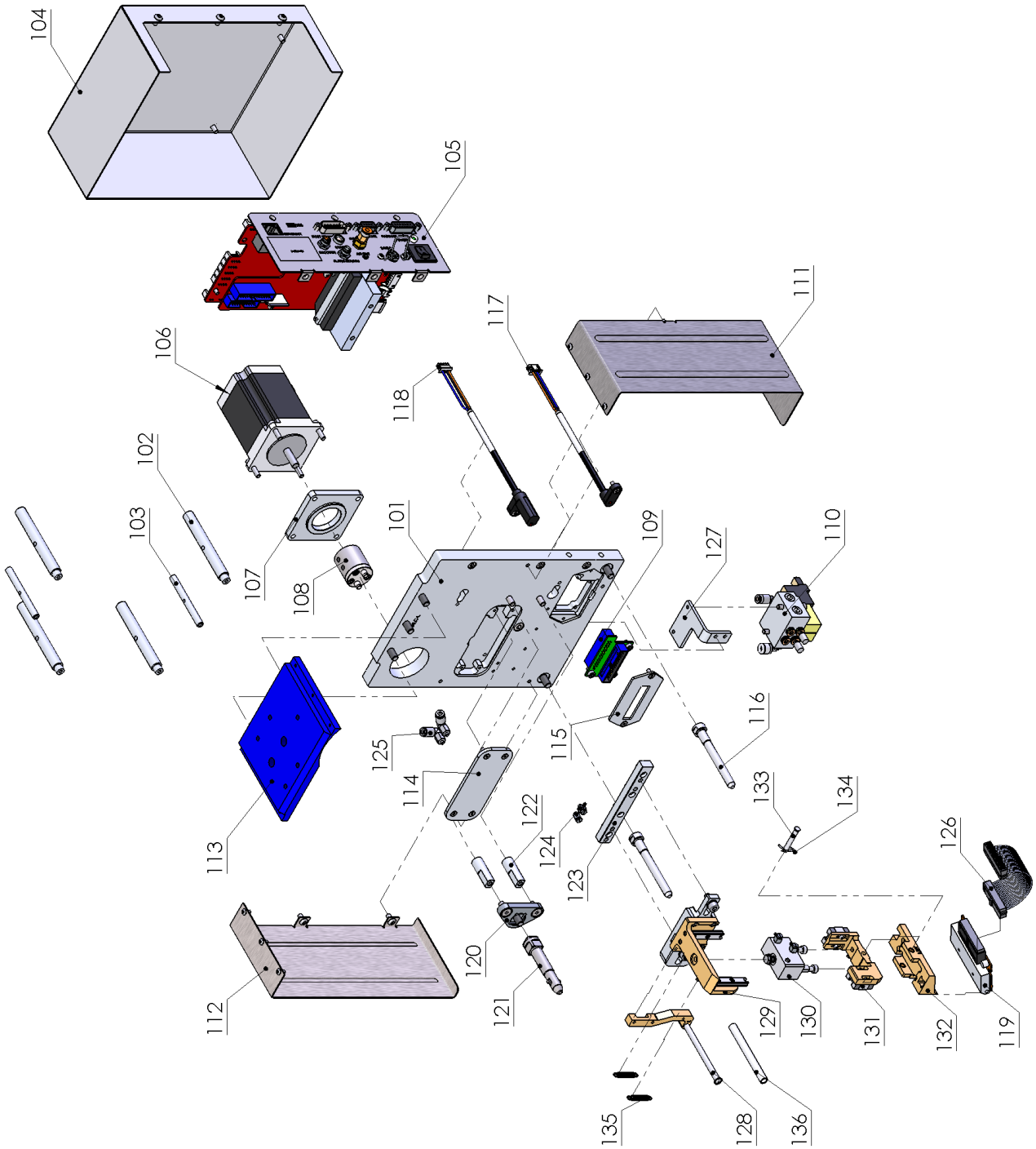
Cassette (Part No. 219565)

NOTE

QTY (Quantity)
QTY indicates how often a part is included in the corresponding assembly (exploded view).

Item No.	Part No. (Europe)	Part No. (US)	Description	QTY
8, 9	102326	NMS-50116KIT	ASSEMBLY - DRAG CORD	1
11, 31	103167		ASSEMBLY - UNWIND SPINDLE	1
12	110196	NMS-9054	ASSEMBLY - IDLER SHAFT	3
13	219077		ASSEMBLY – TAPERED IDLER SHAFT	1
14	110181	NMS-50240	PIN - CASSETTE ALIGNMENT	2
15	219523		ASSEMBLY - FEED ROLL - XLC	1
16, 32	219532		ASSEMBLY - WINDUP SPINDLE - XLCL	1
20	102053	NMS-50135A	POLYCORD DRIVE BELT	1
21, 22, 23, 25, 26	103369		ASSEMBLY - BRAKE ARM	1
27	219063		ASSEMBLY - DANCER ARM	1
28	219511		ASSEMBLY - XL CASSETTE LOCK	1
29	215381		SPRING - TENSION CONTROL	1
31	3.0000.46005	NMS-50115	SPRING – UNWIND SPINDLE	2

Engine (Part No. 219566)

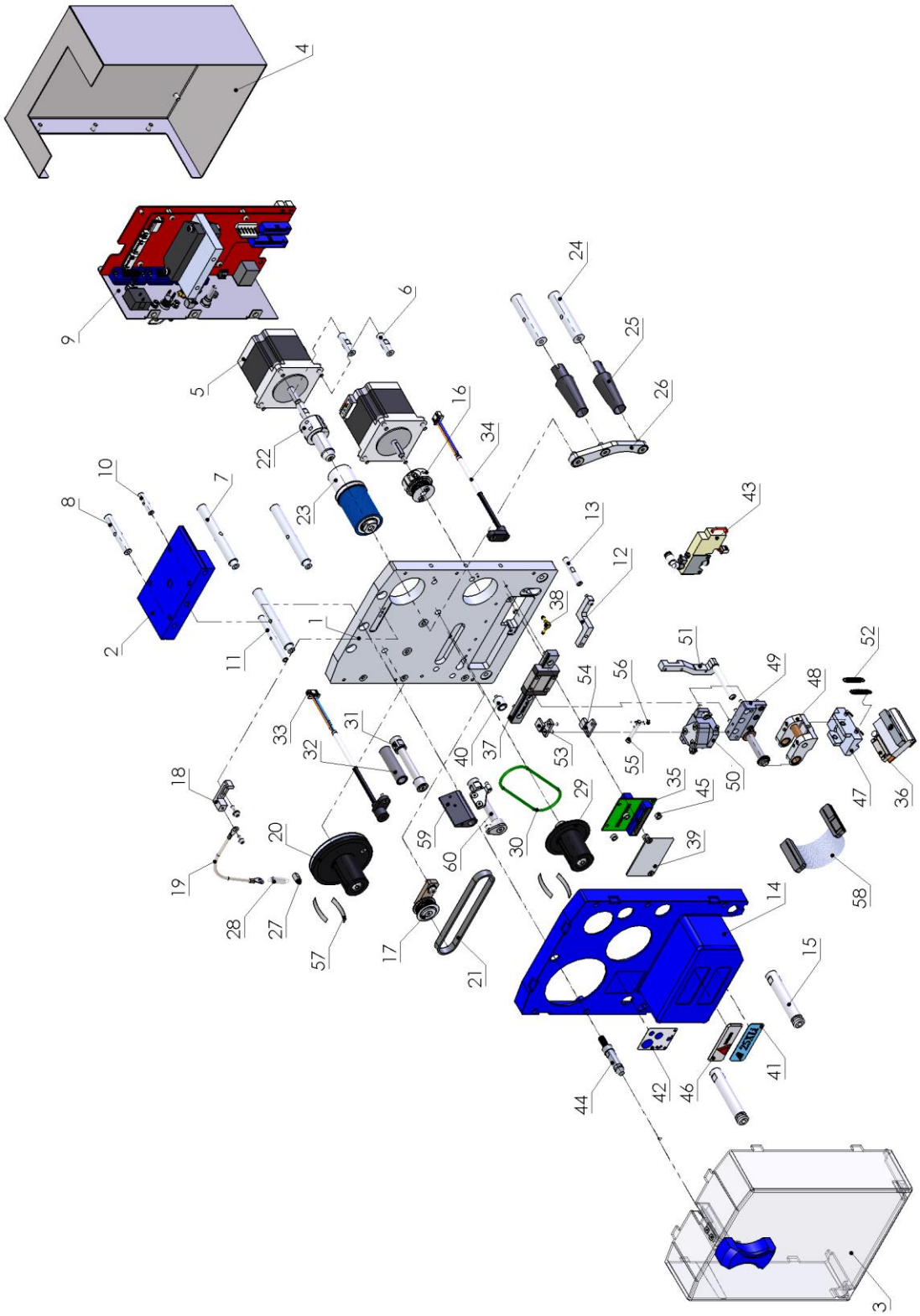


Engine (Part No. 219566)

No.	Part No. (Europe)	Part No. (US)	Description	QTY
104	215336		REAR COVER - LH	1
105	219099		ASSEMBLY - LTU PCB XLC	1
106	101889	NMS-40000	STEPPER MOTOR – FEED ROLLER	1
108	103418	NMS-9053-XLC	ASSEMBLY – FEED ROLLER DRIVE COG	1
109	219534		TPH CONNECTOR PCB	1
110	102341	NMS-9039	ASSEMBLY – PNEUMATIC VALVE	1
111	215334		COVER - FRONT RIGHT - LH	1
112	215333		COVER - FRONT LEFT - LH	1
117	102335	NMS-9010M	SENSOR - TPH HOME	1
118	102334	NMS-9009M	SENSOR - CASSETTE HOME	1
119	101935	NMS-9040	THERMAL PRINT HEAD	1
120	215320		PLATE - CAM POST	1
121	215319		POST - CAM	1
122	215321		STANDOFF - CAM POST MTG PLATE	2
123	103419	NMS-50175	RAIL - TPH ASSY MTG	1
126	219541		CABLE - 53XLCL TPH / CONNECTOR PCB	1
127	103417	NMS-50238	BRACKET - VALVE SUPPORT - XL40	1
128, 136	219537		ASSEMBLY - TPH PEEL BAR - XLCL	1
132	219538		ASSEMBLY – TPH PIVOT BLOCK	1
128, 129, 130, 131, 132, 133, 134, 135, 136	219079		ASSEMBLY - TPH – 53MM – LEFT HAND	1
133	103415	NMS-50166	SHAFT - PIVOT	1
134	103416	NMS-50167	CLIP - PIVOT PIN	1
135	110193	NMS-50168	TENSION SPRING - TPH	2
OPTIONS / ACCESSORIES				
	103309		HEATER - ENGINE PLATE	1
8, 15, 20, 32, 126, 133, 134, 135, 136	219147		53XLCL SERVICE PARTS KIT	1

25XLi:

(Part No. 219100)



25Xli (Part No. 219100)

NOTE

QTY (Quantity)
QTY indicates how often a part is included in the corresponding assembly (exploded view).

Item No.	Part No. (Europe)	Part No. (US)	Description	QTY
3	219071		ASSEMBLY – FRONT COVER	1
4	215316		COVER REAR 25XLI	1
5	101888	NMS-40001	STEPPER MOTOR	2
9	219086		ASSEMBLY – LTU PCB	1
14, 41, 42, 46	103368		KIT - COVER ENGINE PLATE 25XLI	1
16	102338	NMS-9014	ASSEMBLY – PRINTHEAD DRIVE PULLEY	1
17	110192	NMS-9060	ASSEMBLY – IDLER PULLEY	1
19, 28	102326	NMS-50116KIT	ASSEMBLY – DRAG CORD	1
20, 57	219073		ASSEMBLY – UNWIND SPINDLE	1
21	102426	NMS-40002	BELT – TPH DRIVE TIMING	1
22	102337	NMS-9013	ASSEMBLY – RIBBON FEED ROLLER	1
23	219070		ASSEMBLY – DRIVE ROLLER 25XLI	1
25	215270		GUIDE – 35MM RIBBON	2
29, 57	219074		ASSEMBLY – WINDUP SPINDLE	1
30	102053	NMS-50135A	POLYCORD DRIVE BELT	1
31, 32	103367		IDLER ROLLER	1
59, 60	219080		ASSEMBLY – RIBBON BREAK SENSING	1
33	102336	NMS-9011M	SENSOR – RIBBON BREAK	1
34	102335	NMS-9010M	SENSOR – TPH HOME	1
35	103420	NMS-9058	CONNECTOR PCB 25XLI TPH	1
36	219520		THERMAL PRINTHEAD 1,25"	1
37	219517		RAIL – TPH HORIZONTAL	1
43	103366		ASSEMBLY - PNEUMATIC VALVE	1
47	219521		ASSEMBLY – TPH PIVOTAL	1
51	219082		ASSEMBLY – PEEL PIN	1
52	110193	NMS-50168	TENSION SPRING – TPH	2
53	219508		ASSEMBLY – TPH BELT CLAMP TOP	1
54	215312		CLAMP – TIMING BELT - BOTTOM	1
37, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56	219522		ASSEMBLY – PRINTHEAD SUPPORT SYSTEM	1
55	103415	NMS-50166	SHAFT - PIVOT	1
56	103416	NMS-50167	CLIP – PIVOT PIN	1
58	219094		CABLE – 25XLI TPH / CONNECTOR PCB	1
OPTIONS / ACCESSORIES				
	103395		BACKUP PAD	1
19, 21, 23, 30, 32, 58, 59	219107		25XLI SERVICE PARTS KIT	1